# It’s getting Windy at the CNDI!

# Offshore Wind Aff

### 1ac Plan

#### The United States federal government should revise the Coast Zone Management Act (CZMA) to:

#### mandate offshore wind power development where appropriate and feasible on all U.S. coasts;

#### require revisions to states' Coastal Zone Management Plans (CZMPs) in accordance with this new mandate;

#### increase incentives for offshore wind power development.

### 1ac Economy Adv

#### Advantage \_\_\_\_\_ is the Economy:

#### The lack of a strong and effective federal mandate is a key barrier blocking offshore wind development

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III Current Regulatory Framework for Offshore Wind

Both state and federal governments share control over offshore wind project siting approval and permitting. Geography determines the jurisdiction of each: state governments control their respective Coastal Zones, from the baseline of their shores out three nautical miles, n92 and the federal government controls the Outer Continental Shelf beyond that. n93 Offshore wind turbines are typically located on the Outer Continental Shelf; n94 thus, the federal government sites and permits this component of an offshore wind project. n95 To get the electricity to consumers on land, however, offshore wind projects must necessarily include transmission lines from the turbines, through state waters and onto land. State governments control the siting and permitting of these [\*1643] transmission lines. n96 Both federal and state jurisdiction are described in more detail later, along with the CZMA. The CZMA provides the primary mechanisms for balancing state and federal interests in coastal waters. n97 It leaves states with substantial discretionary power and no federal mandate regarding offshore wind power development, despite its undertones of environmental protection.

A. Federal Jurisdiction

Federal jurisdiction begins more than three nautical miles from the shore, along the Outer Continental Shelf, and ends two hundred nautical miles out to sea. n98 Analyses of offshore wind capacity typically assume that wind farms will be built in federal waters, more than five miles from the coast. n99 Thus, federal jurisdiction covers the generation component of an offshore wind project, mainly the turbines. n100 This includes site approval and permitting for project construction. n101

Section 388 of the Energy Policy Act of 2005 grants the Department of the Interior (DOI) primary authority over offshore wind farm approval and permitting. n102 Section 388 specifies that the Minerals Management Service (MMS), a branch of DOI, controls the offshore wind facility permitting process; the Secretary of the Interior makes the final permitting decision. n103 This grant of authority extends MMS's existing authority under the Outer Continental Shelf Lands Act (OCSLA), which gives it management rights over the Outer Continental Shelf primarily for offshore fossil fuel extraction. n104 Because of MMS's experience with managing offshore oil and gas extraction, Congress deemed it the proper body for offshore wind permitting as well. n105 Opponents of the decision have been concerned with MMS's lack of experience with marine habitat regulation and protection. n106 Fortunately, MMS appears receptive to coordinating with other agencies with relevant experience, like the Army Corps of Engineers, National Marine Fisheries Service, Coast Guard, Department of Energy, and Environmental Protection Agency, as well [\*1644] as appropriate state actors. n107

Section 388 came in response to controversy over which federal agency had permitting authority during the early stages of the Cape Wind project, which is described in more detail in Part IV. While Section 388 does not resolve all of the issues relating to federal jurisdiction over offshore wind, n108 its designation of MMS as the primary permitting agency marks Congress's first step toward a unified review process for offshore alternative energy. n109 Nonetheless, the current federal regulatory environment for offshore wind remains confusing. In April 2009, President Obama took a first step toward remedying some of that confusion by announcing a coordinated program, headed by DOI, for federal offshore renewable energy permitting. The program will cover not only offshore wind power generation, but also other offshore renewable energy, such as electricity generated from ocean currents. n110 Despite this progress toward an improved federal regulatory program, barriers to offshore wind power still exist, largely due to the absence of a strong and effective federal mandate promoting offshore wind power development and the powers that states retain over project siting. n111

B. State Jurisdiction

Under the Submerged Lands Act, state jurisdiction generally covers ocean territory three miles or less from the coast, n112 an area known as the Coastal Zone. n113 As noted previously, any electricity generated in an offshore facility must be transmitted to land through the state controlled Coastal Zone. Therefore, state - and sometimes local - authorities ultimately have a role to play in any offshore wind project through the siting and permitting of transmission cables that are necessary to bring electricity from the turbines to land. Although state and localities may only exert direct control over the permitting of transmission cables, they will almost certainly consider the impact of the generation turbines on their aesthetic view environment. They know that denying transmission permits effectively stalls or destroys the construction of generation facilities. States will also likely consider such [\*1645] aesthetic and environmental considerations in the federal consistency review process, with which they may also block federal activities and permits. n114 Federal consistency review is a component of the CZMA, and will be described in more detail below.

Because most of the costs of offshore wind power development are local, there is a strong argument for state and local control over offshore wind project siting: because localities must deal with the downsides of offshore wind projects, they should control where those projects are placed. n115 On the other hand, there are broader, positive effects of offshore wind power development - such as energy security improvement and environmental benefits like climate change mitigation - that imply a need for stronger federal intervention to balance appropriately the costs and benefits of offshore wind. n116 The CZMA attempts to provide a formal structure for such balancing, but it ultimately leaves the states with too much power, and the federal government and offshore wind farm proponents with no formal federal encouragement or support.

C. The Coastal Zone Management Act: Attempting to Reconcile Local Interests with National Priorities

The overarching goal of the CZMA is "to preserve, protect, develop, and where possible, to restore or enhance, the resources of the Nation's coastal zone for this and succeeding generations." n117 The CZMA mentions the development of energy facilities in the Coastal Zone, but its language is vague, and generally requires only that states undertake "adequate consideration of the national interest" in siting energy facilities, and "give consideration" to any applicable national or interstate energy plan or program. n118 The CZMA also mentions energy with regard to funding for development: "The national objective of attaining a greater degree of energy self-sufficiency would be advanced by providing Federal financial assistance to meet state and local needs resulting from new or expanded energy activity in or affecting the coastal zone." n119 However, the CZMA does not mention offshore wind energy or renewable energy at all.

Although the CZMA acknowledges the "national interest in the effective management, beneficial use, protection, and development of the coastal zone," n120 it allows states substantial discretion over their coastal zone management through CZMPs, which the Secretary of Commerce oversees. n121 As noted previously, the Submerged Lands Act defines state coastal zones as [\*1646] three miles from the shoreline. n122 The CZMA mechanism of federal consistency review extends state power further, past their coastal zones, by allowing states to review and sometimes overrule federal actions and permits in federal waters. n123

Before the CZMA was promulgated, the coastal zone had long been subject to decentralized management. n124 The CZMA continues this tradition with its own approach to federalism, explicitly encouraging cooperation between local, state, and federal levels of government in their management of coastal resources. n125 Specifically, under the CZMA, each state makes its own CZMP. n126 The CZMA provides a variety of policy considerations for states to incorporate into their management programs. Prioritizing construction of certain facilities, specifically energy facilities, in states' coastal zones is one of several listed considerations. n127 Others include protecting natural resources; minimizing the loss of life and property to flooding and sea level rise; improving coastal water quality; allowing public recreational access to the coast; restoring urban waterfronts and preserving coastal features; coordinating and simplifying governmental management procedures for coastal resources; consulting and coordinating with federal agencies; giving timely and effective notice for public and local participation in governmental decision making; comprehensive planning for marine resource preservation; and studying sea level rise and land subsidence. n128 The Secretary of Commerce examines states' CZMPs, making sure they are in accordance with the CZMA's policy considerations and other mandates, and any other federal regulations. n129 In particular, the CZMA requires that states adequately consider the national interest in "siting of facilities such as energy facilities which are of greater than local significance. In the case of energy facilities, the Secretary shall find that the State has given consideration to any applicable national or interstate energy plan or program." n130 Once approved by the Secretary of Commerce, however, state CZMPs are subject to very little federal constraint under the CZMA, leaving states with nearly complete discretion within their coastal zones.

State control is expanded by federal consistency review, n131 a mechanism unique to the CZMA. Consistency review allows a state to review a federal agency activity or permit within or outside of the coastal zone for compatibility [\*1647] with the state's CZMP when the activity or permit affects the state's coastal zone. n132 Under this mechanism, the federal agency must submit a "consistency determination" (for an activity) or "consistency certification" (for a permit) to the state before moving forward with the project. n133 For federal permits, which would be more relevant to offshore renewable development than federal actions, the state then has the opportunity to concur with or object to the agency's certification. n134 "No license or permit shall be granted by the Federal agency until the state ... has concurred with the applicant's certification." n135 Thus, a coastal state's control extends beyond its own coastal zone into federal waters, as it has the ability to review - and potentially block - any project that affects their coastal zone. In the end, however, the Secretary of Commerce - by her own initiative or in response to an appeal - can overrule the state's protest by finding that a permit is consistent with the objectives of the CZMA or otherwise in the interest of national security. n136

Since the passage of the CZMA in 1972 until March 2010, states had filed 141 appeals with the Secretary protesting federal permits affecting their coastal zones. n137 States settled their issues with the federal government in 64 instances, or 45 percent of these cases. n138 The Secretary dismissed or overrode state appeals in 32 instances, or 23 percent of these cases. n139 Of the remaining 45 appeals that the Secretary considered for their substance, the Secretary overrode the state's objection in 14 cases, or 31 percent of the time, and accepted the state's objection in 30 cases, or 67 percent of the time. n140 Only 19 of the 45 appeals related to energy facilities, but all of these related to oil or natural gas projects; the Secretary overrode these appeals about half of the time. n141 Although states do not choose to use their federal consistency review power over federal permits frequently, as these numbers show, it is nonetheless a powerful tool that extends their power beyond their coastal zones.

Ultimately, the CZMA, with its focus on decentralized, state control over coastal-zone management, leaves the federal government and offshore wind proponents with minimal recourse in their struggle to develop offshore wind [\*1648] projects. The CZMA allows states near-complete control over their coastal zones through their CZMPs, with almost no role for the federal government in promoting offshore wind energy (or any kind of renewable energy). Because electricity transmission lines must necessarily run through states' coastal zones to reach consumers, states therefore have significant control over offshore wind projects. Through federal consistency review, their direct control can even extend into federal waters; though states have not often employed this process, the Secretary of Commerce has seemed willing to give them some deference when they do. Given a policy of such strong local control, and the absence of a firm federal mandate for offshore wind power development, local interests have been able to stall both federal and state permitting processes, often through litigation. Proponents of offshore wind have little federal support, and no guaranteed source of state support, on which to rely. Cape Wind presents a compelling and frustrating illustration of this problem.

#### Offshore wind’s vital to the economy – creates jobs in key industries and resolves energy concerns, no disads because the federal government is investing now

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“Clean, domestic, renewable energy resources are vital to meeting the United States’ critical energy, economic, and environmental challenges. The National Offshore Wind Strategy was designed to provide a pathway for offshore wind energy to help address these challenges.

In 2008, an Energy Department study found that the United States could generate 20 percent of its electricity from wind energy by 2030, with offshore wind providing 54 gigawatts (GW) of capacity. To help realize this goal, the National Offshore Wind Strategy focuses on two key objectives – reducing the cost of offshore wind energy and promoting responsible commercial deployment – which the Department is working to achieve through a combination of activities in three areas: technology development, market barrier removal and advanced technology demonstration.

Offshore wind represents a large, untapped energy resource for the U.S. – offering over 4,000 GW of clean, domestic electricity potential. Offshore wind can help reduce greenhouse gas emissions, increase and diversify the domestic content of our energy supply, provide cost-competitive electricity to key coastal communities and drive economic growth, particularly for manufacturing and port industries.

The Department’s offshore wind activities are aligned with the objectives detailed in the National Offshore Wind Strategy. In 2011 and 2012, the Department announced over 30 awards to industry, universities and national laboratories to help drive development of cost-competitive, efficient offshore wind technologies and reduce barriers to offshore project deployment. These investments are helping to advance breakthroughs in areas including numerical modeling of offshore wind systems, advanced component design and sustainable siting, permitting and grid integration.”

Last December, the Department announced seven offshore wind awards for projects in Maine, New Jersey, Ohio, Oregon, Texas and Virginia as part of the $168 million Offshore Wind Advanced Technology Demonstration program. What is the objective of these projects?

#### Investment spurs a massive economic boom

AWEA 11 American Wind Energy Assosciation, http://www.awea.org/learnabout/publications/factsheets/upload/Offshore-Wind-America-s-New-Energy-Opportunity.pdf

Offshore Wind: America’s New Energy Opportunity We must act urgently to support the development of the first generation of offshore wind projects in the United States in order to capture a new American manufacturing opportunity and create thousands of new American jobs. Newly created manufacturing facilities and the associated jobs will be located in some of the areas of our country where they are needed most, near ports along the Eastern Seaboard, the Gulf Coast and in the Great Lakes region. In addition, offshore wind will allow us to tap a vast new source of clean domestic energy that will help to stabilize energy prices.¶ Offshore wind energy development will create American jobs  Once a pipeline of projects is established, there is a tremendous opportunity for regional port and supply chain development in support of the offshore wind industry. Substantial industrial manufacturing jobs are expected to be created to manufacture turbines, foundations, blades, sub-stations, and cables. The U.S. Department of Energy (DOE) estimates that by 2030, the development of 54,000 MW of offshore wind projects in the U.S. could create more than 43,000 permanent operations and maintenance jobs and approximately 20.7 direct jobs per annual megawatt (MW).i  The success of the land-based wind industry in the U.S., which has created over 75,000 jobs and contributed to the placement of over 400 manufacturing facilities across 43 states, ii demonstrates the economic development potential for offshore wind.  For the wind sector overall, including both land-based and offshore, DOE estimates that the wind industry will support 500,000 American jobs by 2030.iii¶ Offshore wind is an established global industry and a new opportunity for the United States¶  The U.S. National Renewable Energy Laboratory estimates that the potential for offshore wind power in the U.S. is four times greater than the country's current total generating capacity from all sources. iv  The first offshore wind farm was installed off the coast of Denmark in 1991 and in Europe today, 4,000 MW of offshore wind capacity has been constructed. This is enough electricity to power the equivalent of almost 1.3 million homes in the U.S.vi¶  By 2020, with an annual investment of the equivalent of $10.76 billion, Europe is expected to have installed 40,000 MW of offshore wind capacity,vii enough electricity to power the equivalent of almost 13 million homes in the U.S.viii¶  China plans to increase the combined installed capacity of its offshore wind power sector to 5,000 MW by 2015 and 30,000 MW by 2020ix, enough electricity to power the equivalent of 1.6 million and almost 10 million U.S. homes respectively.

#### Offshore wind is key – it’s a rapidly growing industry and supports key sectors

Carney, Carper, and Coons 11, Rep. John Carney and Sens. Tom Carper and Chris Coons, Proposal would extend incentives for offshore projects in Delaware and across U.S., http://johncarney.house.gov/index.php?option=com\_content&view=article&id=407:delaware-congressional-delegation-introduces-legislation-to-spur-offshore-wind-industry&catid=13&Itemid=9

"As Congress works to responsibly reduce our deficit, we need to continue to maintain important investments in areas critical to economic growth, like renewable energy, manufacturing and job training programs," said Congressman Carney. "Offshore wind power is a rapidly growing industry around the world. By incentivizing companies to develop offshore wind operations in the United States, we will reduce our dependency on foreign oil, while creating good-paying manufacturing jobs right here in Delaware. I look forward to working with my Democratic and Republican co-sponsors in both the House and Senate to pass this important piece of legislation."

"Developing wind energy off our nation's shores, especially in places like Delaware, is a critical part of boosting American energy independence and jumpstarting our clean energy economy," said Senator Carper. "Offshore wind is a true 'win-win-win' – it is cleaner for our environment, reduces our dependence on fossil fuels and foreign energy, and helps create jobs. If we want to harness this untapped, domestic energy source, providing investment tax incentives for our country's first offshore wind projects is essential. Our bill would do just that. Additionally, it would help spur an industry that can be an engine for new, good-paying jobs in manufacturing, construction, maintenance and production. I look forward to working with my colleagues to pass this legislation and encourage the growth of the American offshore wind industry."

"Wind energy generated off our shores has the potential to strengthen domestic energy production, lower energy costs, and create jobs," Senator Coons said. "This bill will help get turbines moving and, in conjunction with other policies, could help get the first generation of offshore wind projects providing clean, sustainable electricity to our communities."

The legislation defines offshore facilities as any facility located in the inland navigable waters of the United States, including the Great Lakes, or in the coastal waters of the United States, including the territorial seas of the United States, the exclusive economic zone of United States, and the outer Continental Shelf of the United States.

Offshore wind offers enormous potential for producing clean domestic energy and helping create good jobs in areas located close to large population centers along the coasts. Because offshore wind blows faster and more uniformly at sea than the wind on land, it is a huge untapped resource for clean American power. According to the University of Delaware, the winds off the Atlantic Coast have the potential of generating 330 Gigawatts of power. That is enough power to replace about 300 dirty, large coal plants and enough power to support nine states from Massachusetts to North Carolina. Additionally, building and operating these wind farms would create economic opportunities along our coasts. Learning from European countries, who have seen over 50 offshore wind projects deployed since 1991, we know an offshore wind project can create up to 1,500 jobs in construction and operation and maintenance alone.

#### It drives growth on all fronts– jobs, energy security, blackouts, coastal areas, ports, and tourism

SACE 3/25, Southern Alliance for Clean Energy, 12 Business Cases that Support Offshore Wind Energy, http://blog.cleanenergy.org/2014/03/25/offshorewind-3/

Offshore wind energy is a clean and inexhaustible resource that would reduce air pollution, [preserve precious water resources](http://www.awea.org/windandwater), and reduce carbon emissions along our coasts here in the Southeast. In addition to [these environmental benefits](http://www.ucsusa.org/clean_energy/our-energy-choices/renewable-energy/environmental-impacts-wind-power.html), offshore wind energy would provide a major source of economic growth.

Here are 12 business cases that support offshore wind energy in the Southeast:

1. The Southeast has some of the best offshore wind resource in the country.

Here in the Southeast, we have [significant offshore wind energy potential](http://www.cleanenergy.org/learn-about-offshore-wind/) in Virginia, North Carolina, South Carolina, and Georgia. [Research by James Madison University suggests](http://windsystemsmag.com/article/detail/548/potential-economic-impacts-from-offshore-wind-in-the-united-states--the-southeast-region) the region could host between 1,695 megawatts to 9,760 megawatts of offshore wind capacity by 2030. Developing just 1,000 megawatts of our resource may create a $3.9-$5.6 billion investment.

2. Offshore wind development in the Southeast is cheaper than other regions.

Shallow seas and strong breezes help reduce the costs associated with building offshore wind farms in our region. According to the [Energy Information Association](http://www.eia.gov/forecasts/capitalcost/pdf/updated_capcost.pdf) (EIA), Southeastern states (including Virginia, North Carolina, South Carolina and Georgia) are some of the lowest cost construction sites for offshore wind compared to the rest of the country. For example, building an offshore wind farm with 1,000 megawatts of capacity off South Carolina is estimated to be about 44% cheaper than building that same project off New York – and could save nearly $2.2 billion.

3. Offshore wind energy would increase energy security.

Recent extreme weather events have proven that wind energy can provide extremely valuable electricity and avoid power outages. [According to the American Wind Energy Association](http://www.aweablog.org/blog/post/wind-energy-helps-ward-off-power-outages) (AWEA), during record-breaking freezing temperatures this winter, “wind energy’s output provided the critical difference that allowed grid operators to keep supply and demand in balance and the lights on.” [At times in the Mid-Atlantic](http://ecowatch.com/2014/01/28/wind-power-millions-polar-vortex/) during January’s Polar Vortex, wind energy was estimated to save ratepayers to the tune of $1.5 million to $2 million per hour.

4. Offshore wind energy could keep prices down for ratepayers.

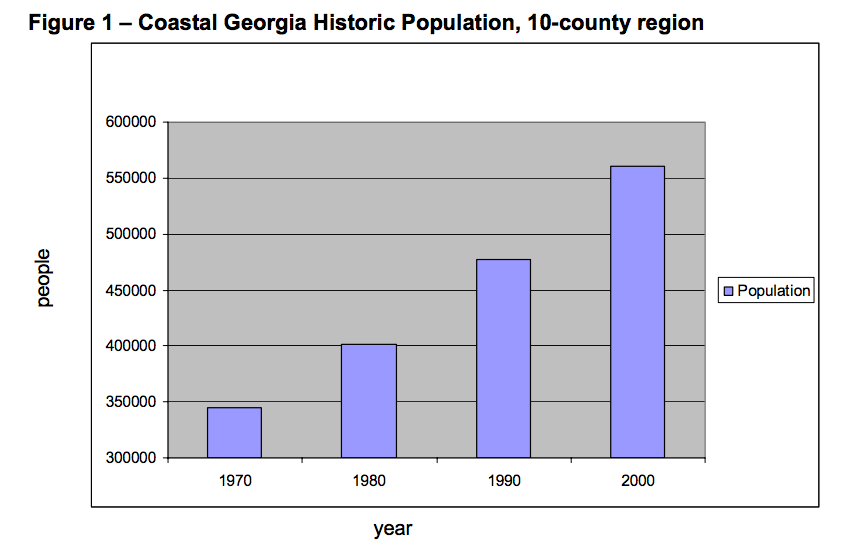
Offshore wind farms can help protect ratepayers from unpredictable fossil fuel price fluctuations. A recent study by [General Electric](http://www.pjm.com/~/media/committees-groups/committees/mic/20140303/20140303-pjm-pris-final-project-review.ashx) shows that offshore wind, in conjunction with onshore wind, could reduce electricity production costs in the Mid-Atlantic by $16.1 billion, and reduce wholesale load payments by $21.5 billion by 2026.

5. Offshore wind energy acts as a peaking power resource.

Offshore wind energy could supply cost effective electricity for high electrical demand across the Southeast during the summertime. A [recent report](http://www.cleanenergy.org/seapower/) published by SACE shows that North Carolina, South Carolina, and Georgia’s offshore wind resources are positively correlated with peak electricity demand hours in summer months because of the sea breeze effect. Replacing peaking generation, which can be very expensive, with a zero-fuel-cost resource like offshore wind can reduce ratepayer costs. Cape Wind, the nation’s first proposed offshore wind farm, is [expected to save customers in New England $25 million annually](http://www.capewind.org/printarticle141.htm) by reducing the use of expensive power plants.

6. Offshore wind resources are located where it is most needed: the coasts.

According to the National Oceanic and Atmospheric Administration, our coastlines are experiencing [rapid population growth](http://stateofthecoast.noaa.gov/features/coastal-population-report.pdf). To meet this growing population demand, offshore wind energy can provide easily accessible energy and [avoid transmission grid congestion](http://atlanticwindconnection.com/AWC-Newsletter-July-2012/How-does-the-AWC-relieve-grid-congestion) from the West and transmission construction costs. Alternating current transmission power lines lose electricity over great distances, and every mile of additional transmission line can increase construction costs by [$1-$2 million per additional mile](http://www.aep.com/about/IssuesAndPositions/Transmission/undergrounding.aspx).



A Georgia Institute of Technology study predicts that coastal Georgia will see a 51% population increase from 2000 to 2030. Credit: Georgia Tech’s Center for Quality Growth and Regional Development

7. Offshore wind energy development will revitalize our ports.

In Europe, where [offshore wind farms are being developed at a rapid pace](http://www.renewableenergyworld.com/rea/news/article/2009/07/britains-old-industries-see-renewable-boost), ports are seeing a boost in business from the offshore wind industry. The port of New Bedford in Massachusetts is undergoing a[$100 million renovation](http://www.newbedford-ma.gov/Mayor/PressReleases2013/Marine_Commerce_Terminal.pdf) to improve its abilities to handle offshore wind turbines and components.

 8. The Offshore Wind Industry will create local jobs for the region.

The Department of Energy released a report (“[Potential Economic Impacts from Offshore Wind in the Southeast Region](http://www.nrel.gov/docs/fy13osti/57565.pdf),”), conducted by James Madison University, that looks at various economic scenarios along the coasts of Virginia, North Carolina, South Carolina, and Georgia. The study suggests that a “moderate” offshore wind development scenario would result in 20,000 construction jobs and 6,700 permanent jobs across the Southeast by 2030.

9. Offshore wind farms are attractions for turbine tourism.

People are fascinated by wind farms and [turbine tourism is well documented](http://blog.cleanenergy.org/2014/01/13/turbinetourism/). Offshore wind farms are [already tourist attractions in Europe](http://www.southbaltic-offshore.eu/news/imgs-media/2013_04_SBO_SOW_tourism_study_final_web.pdf) where people take boat tours to visit the wind farms. A [University of Delaware](http://www.ceoe.udel.edu/windpower/docs/lilleyfirekemp-windbeachtourism-10.pdf) study shows that offshore wind farms would draw tourists and create demand for boat tours.

10. Offshore wind farms save water.

Most thermal power plants, like coal and nuclear power plants, withdraw and consume large quantities of freshwater. Wind farms, like solar photovoltaic panels, do not use water to generate power. Developing 1,000 megawatts of wind energy capacity could [reduce water consumption](http://www.windpoweringamerica.gov/pdfs/economic_development/2008/ga_wind_benefits_factsheet.pdf) by 1.6 billion gallons per year by replacing water-intensive power plants.

11. Offshore wind farms would reduce cash exports and fuel imports.

Offshore wind farms use a free, inexhaustible local fuel to generate electricity: the wind. In 2012, [Southeastern states and their respective utilities spent $6.4 billion to import coal into the region](http://blog.cleanenergy.org/2014/01/14/burning-coal-burning-cash-in-the-southeast/). These are billions of dollars leaving the region, never to return again. Offshore wind could help supplant coal imports and keep money in the local economy.

#### Only coastal development supports key economic hubs

Clemson University no date, Why Offshore Wind Power?, http://clemsonenergy.com/scoffshore/why-offshore-wind-power/

At a time when global economies are strained by recession, growing competition for existing fossil fuel resources are leading to fluctuating energy prices and concerns over national security. Global energy demand is projected to grow as much as 50% by 2030.

Nearly 78% of the nation’s electrical demand is consumed by the 28 coastal states most of which do not have substantial land based wind resources to develop. These states along the Atlantic, Pacific and Great Lakes are starting to look at their vast offshore wind potential near their growing demand centers to meet their renewable energy demands.

In the Charleston area alone, an additional 1.5 gigawatts of electricity will be needed to power a population boom that is expected to see one million people move to the region by 2025, living in 440,000 new homes.

Such coastal population growth will strain existing electricity resources, pushing demand for new energy sources. The U.S. Department of Energy estimates that by 2030, one-fifth of electricity generated nationwide will come from coastal or offshore wind farms. South Carolina has the potential to be the site of the first offshore wind farm in the United States and an industrail hub for the entire East Coast and Europe.

Relatively shallow offshore waters are ideal for wind-farm construction, and Charleston’s state-of-the-art cargo port will help the flow of construction supplies. Development of this resource will diversify the state’s energy portfolio, increase energy security, reduce imports of fossil fuels, promote local economic growth and reduce green house gas emissions.

#### Economic decline causes global nuclear war

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With the global financial system in serious trouble, is America's geostrategic dominance likely to diminish? If so, what would that mean?

One immediate implication of the crisis that began on Wall Street and spread across the world is that the primary instruments of U.S. foreign policy will be crimped. The next president will face an entirely new and adverse fiscal position. Estimates of this year's federal budget deficit already show that it has jumped $237 billion from last year, to $407 billion. With families and businesses hurting, there will be calls for various and expensive domestic relief programs.

In the face of this onrushing river of red ink, both Barack Obama and John McCain have been reluctant to lay out what portions of their programmatic wish list they might defer or delete. Only Joe Biden has suggested a possible reduction -- foreign aid. This would be one of the few popular cuts, but in budgetary terms it is a mere grain of sand. Still, Sen. Biden's comment hints at where we may be headed: toward a major reduction in America's world role, and perhaps even a new era of financially-induced isolationism.

Pressures to cut defense spending, and to dodge the cost of waging two wars, already intense before this crisis, are likely to mount. Despite the success of the surge, the war in Iraq remains deeply unpopular. Precipitous withdrawal -- attractive to a sizable swath of the electorate before the financial implosion -- might well become even more popular with annual war bills running in the hundreds of billions.

Protectionist sentiments are sure to grow stronger as jobs disappear in the coming slowdown. Even before our current woes, calls to save jobs by restricting imports had begun to gather support among many Democrats and some Republicans. In a prolonged recession, gale-force winds of protectionism will blow.

Then there are the dolorous consequences of a potential collapse of the world's financial architecture. For decades now, Americans have enjoyed the advantages of being at the center of that system. The worldwide use of the dollar, and the stability of our economy, among other things, made it easier for us to run huge budget deficits, as we counted on foreigners to pick up the tab by buying dollar-denominated assets as a safe haven. Will this be possible in the future?

Meanwhile, traditional foreign-policy challenges are multiplying. The threat from al Qaeda and Islamic terrorist affiliates has not been extinguished. Iran and North Korea are continuing on their bellicose paths, while Pakistan and Afghanistan are progressing smartly down the road to chaos. Russia's new militancy and China's seemingly relentless rise also give cause for concern.

If America now tries to pull back from the world stage, it will leave a dangerous power vacuum. The stabilizing effects of our presence in Asia, our continuing commitment to Europe, and our position as defender of last resort for Middle East energy sources and supply lines could all be placed at risk.

In such a scenario there are shades of the 1930s, when global trade and finance ground nearly to a halt, the peaceful democracies failed to cooperate, and aggressive powers led by the remorseless fanatics who rose up on the crest of economic disaster exploited their divisions. Today we run the risk that **rogue states may choose to become ever more reckless with their nuclear toys**, just at our moment of maximum vulnerability.

The aftershocks of the financial crisis will almost certainly rock our principal strategic competitors even harder than they will rock us. The dramatic free fall of the Russian stock market has demonstrated the fragility of a state whose economic performance hinges on high oil prices, now driven down by the global slowdown. China is perhaps even more fragile, its economic growth depending heavily on foreign investment and access to foreign markets. Both will now be constricted, inflicting economic pain and perhaps even sparking unrest in a country where political legitimacy rests on progress in the long march to prosperity.

None of this is good news if the authoritarian leaders of these countries seek to divert attention from internal travails with external adventures.

As for our democratic friends, the present crisis comes when many European nations are struggling to deal with decades of anemic growth, sclerotic governance and an impending demographic crisis. Despite its past dynamism, Japan faces similar challenges. India is still in the early stages of its emergence as a world economic and geopolitical power.

What does this all mean? There is no substitute for America on the world stage. The choice we have before us is between the potentially disastrous effects of disengagement and the stiff price tag of continued American leadership.

#### There are no alternatives to growth and your silly K causes structural violence and conflict

Barnhizer 6 — David R. Barnhizer, Emeritus Professor at Cleveland State University’s Cleveland-Marshall College of Law, 2006 (“Waking from Sustainability's "Impossible Dream": The Decisionmaking Realities of Business and Government,” *Georgetown International Environmental Law Review* (18 Geo. Int'l Envtl. L. Rev. 595), Available Online to Subscribing Institutions via Lexis-Nexis)

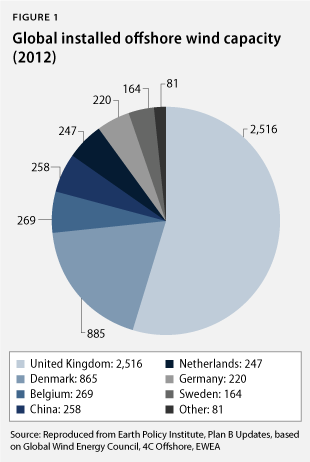
The scale of social needs, including the need for expanded productive activity, has grown so large that it cannot be shut off at all, and certainly not abruptly. It cannot even be ratcheted down in any significant fashion without producing serious harms to human societies and hundreds of millions of people. Even if it were possible to shift back to systems of local self-sufficiency, the consequences of the transition process would be catastrophic for many people and even deadly to the point of continual conflict, resource wars, increased poverty, and strife. What are needed are concrete, workable, and pragmatic strategies that produce effective and intelligently designed economic activity in specific contexts and, while seeking efficiency and conservation, place economic and social justice high on a list of priorities. n60

The imperative of economic growth applies not only to the needs and expectations of people in economically developed societies but also to people living in nations that are currently economically underdeveloped. Opportunities must be created, jobs must be generated in huge numbers, and economic resources expanded to address the tragedies of poverty and inequality. Unfortunately, natural systems must be exploited to achieve this; we cannot return to Eden. The question is not how to achieve a static state but how to achieve what is needed to advance social justice while avoiding and mitigating the most destructive consequences of our behavior.

#### The tech is commercially viable, neg studies inflate costs because their scope is limited to start-ups, not the broader industry, also, no disads – U.S. land-based wind and global offshore wind are increasing now

Conathan 13, Michael Conathan is the Director of Ocean Policy at the Center for American Progress, Making the Economic Case for Offshore Wind, http://americanprogress.org/issues/green/report/2013/02/28/54988/making-the-economic-case-for-offshore-wind/

In his State of the Union address last month, President Barack Obama touted the growth of the American renewable energy sector that has occurred during his time in office—particularly the doubling of “the amount renewable energy we generate from sources like wind and solar.” He pointed out that “Last year, wind energy added nearly half of all new power capacity in America.” These metrics are proof that the renewable energy sector is capable of boosting economic growth while moving us away from the dirty energy sources of the past.



Yet despite the booming expansion of onshore renewable energy facilities, the United States still lags behind many other industrialized countries when it comes to development of a resource that we have in abundance in close proximity to some of our areas of greatest demand for electricity: offshore wind. As we have stood on the sidelines over the past two decades, other countries such as Denmark, the United Kingdom, Germany, and even China have leapt ahead of us, recognizing the inherent value of this strong, commercially viable, renewable resource. As of June 2012, the rest of the world boasted 4,619 megawatts of installed offshore wind energy capacity, while the United States has yet to begin construction on its first offshore wind turbine.

Under President Obama, the Department of Energy announced its intention to close that gap by developing 54 gigawatts of offshore wind capacity by 2030—more than 10 times the amount currently installed worldwide—and has begun taking proactive steps to achieve this target. In just the past five months, the administration has made major strides toward encouraging renewable energy development on the outer continental shelf. In October the Department of the Interior signed its first lease under the “Smart from the Start” program with NRG Bluewater Wind for a wind farm off the coast of Delaware. In November the department announced the first-ever competitive lease sales, giving multiple companies the opportunity to bid for leases on previously identified “wind energy areas” in federal waters off the coasts of Virginia, Massachusetts, and Rhode Island. And In December the Department of Energy announced that it will fund seven offshore wind technology demonstration projects, including Fishermen’s Atlantic City Windfarm in New Jersey; pilot projects in California, the Great Lakes, Connecticut, and Maine; and two turbines off the coast of Virginia.

Despite these advances and pledges of support, critics of the offshore wind industry insist that the technology is too expensive to fully compete with traditional sources of energy—fossil fuels—without massive subsidies. To put that theory to the test, the Center for American Progress, the Clean Energy States Alliance, the Sierra Club, and the U.S. Offshore Wind Collaborative commissioned a study from the Brattle Group—a consulting firm based in Cambridge, Massachusetts—to investigate the costs and benefits of developing a commercial-scale offshore wind industry in the United States.

To date, most studies of offshore wind energy development tended to analyze individual projects, focusing on the specific costs and benefits of building a particular offshore wind farm. Since the next offshore wind farm built in the United States will actually be the first, and first-in-class products or projects of any kind are inherently more expensive, the results of these analyses don’t accurately account for the broader economic impact of developing an entire offshore wind industry the way that the Obama administration and the Department of Energy have suggested. Therefore, we asked the Brattle Group to develop estimates of the overall investment that would be required to develop such an industry in the United States and how that investment would affect the price of electricity.

The results showed that there is great value in investing in offshore wind energy development, specifically:

The investment required to develop 54 gigawatts would range between $18.5 billion and $150 billion. By comparison, subsidies to the oil industry from 1950 to 2010 were $369 billion, $104 billion to the coal industry, and $121 billion to the natural gas industry.

The development would result in an average monthly-rate increase for American consumers ranging from 0.2 percent to 1.7 percent—as little as 25 cents per month for the average household electricity bill.

Even with natural gas prices at an all-time low, the cost of electricity from offshore wind could equal the cost of electricity from gas turbines in about a decade.

The Brattle Group’s analysis does not account for any subsidies to the offshore wind industry such as the production tax credit or the investment tax credit, both of which currently apply. The production tax credit gives developers a tax credit for every kilowatt of energy produced from eligible sources, while the investment tax credit allows investors and developers to write off 30 percent of the amount invested in new qualifying renewable energy projects. Developers can take advantage of one, but not both, of these incentives. Therefore, the Brattle Group’s positive results likely underestimate the positive economic growth offshore wind can provide.

### 1ac Warming Adv

#### Advantage \_\_\_\_\_ is Warming:

#### Warming is real, anthropogenic, and threatens extinction – CONSENSUS goes aff

Richard Schiffman 9/27/13, environmental writer @ The Atlantic citing the Fifth Intergovernmental Panel on Climate Change, “What Leading Scientists Want You to Know About Today's Frightening Climate Report,” The Atlantic, http://www.theatlantic.com/technology/archive/2013/09/leading-scientists-weigh-in-on-the-mother-of-all-climate-reports/280045/

The polar icecaps are melting faster than we thought they would; seas are rising faster than we thought they would; extreme weather events are increasing. Have a nice day! That’s a less than scientifically rigorous summary of the findings of the Fifth Intergovernmental Panel on Climate Change (IPCC) report released this morning in Stockholm.¶ Appearing exhausted after a nearly two sleepless days fine-tuning the language of the report, co-chair Thomas Stocker called climate change “the greatest challenge of our time," adding that “each of the last three decades has been successively warmer than the past,” and that this trend is likely to continue into the foreseeable future.¶ Pledging further action to cut carbon dioxide (CO2) emissions, U.S. Secretary of State John Kerry said, "This isn’t a run of the mill report to be dumped in a filing cabinet. This isn’t a political document produced by politicians... It’s science."¶ And that science needs to be communicated to the public, loudly and clearly. I canvassed leading climate researchers for their take on the findings of the vastly influential IPCC report. What headline would they put on the news? What do they hope people hear about this report?¶ When I asked him for his headline, Michael Mann, the Director of the Earth Systems Science Center at Penn State (a former IPCC author himself) suggested: "Jury In: Climate Change Real, Caused by Us, and a Threat We Must Deal With."¶ Ted Scambos, a glaciologist and head scientist of the National Snow and Ice Data Center (NSIDC) based in Boulder would lead with: "IPCC 2013, Similar Forecasts, Better Certainty." While the report, which is issued every six to seven years, offers no radically new or alarming news, Scambos told me, it puts an exclamation point on what we already know, and refines our evolving understanding of global warming.¶ The IPCC, the indisputable rock star of UN documents, serves as the basis for global climate negotiations, like the ones that took place in Kyoto, Rio, and, more recently, Copenhagen. (The next big international climate meeting is scheduled for 2015 in Paris.) It is also arguably the most elaborately vetted and exhaustively researched scientific paper in existence. Founded in 1988 by the United Nations and the World Meteorological Organization, the IPCC represents the distilled wisdom of over 600 climate researchers in 32 countries on changes in the Earth’s atmosphere, ice and seas. It endeavors to answer the late New York mayor Ed Koch’s famous question “How am I doing?” for all of us. The answer, which won’t surprise anyone who has been following the climate change story, is not very well at all. ¶ It is now 95 percent likely that human spewed heat-trapping gases — rather than natural variability — are the main cause of climate change, according to today’s report. In 2007 the IPCC’s confidence level was 90 percent, and in 2001 it was 66 percent, and just over 50 percent in 1995. ¶ What’s more, things are getting worse more quickly than almost anyone thought would happen a few years back.¶ “If you look at the early IPCC predictions back from 1990 and what has taken place since, climate change is proceeding faster than we expected,” Mann told me by email. Mann helped develop the famous hockey-stick graph, which Al Gore used in his film “An Inconvenient Truth” to dramatize the sharp rise in temperatures in recent times. ¶ Mann cites the decline of Arctic sea ice to explain : “Given the current trajectory, we're on track for ice-free summer conditions in the Arctic in a matter of a decade or two... There is a similar story with the continental ice sheets, which are losing ice — and contributing to sea level rise — at a faster rate than the [earlier IPCC] models had predicted.”¶ But there is a lot that we still don’t understand. Reuters noted in a sneak preview of IPCC draft which was leaked in August that, while the broad global trends are clear, climate scientists were “finding it harder than expected to predict the impact in specific regions in coming decades.”¶ From year to year, the world’s hotspots are not consistent, but move erratically around the globe. The same has been true of heat waves, mega-storms and catastrophic floods, like the recent ones that ravaged the Colorado Front Range. There is broad agreement that climate change is increasing the severity of extreme weather events, but we’re not yet able to predict where and when these will show up. ¶ “It is like watching a pot boil,” Danish astrophysicist and climate scientist Peter Thejll told me. “We understand why it boils but cannot predict where the next bubble will be.”¶ There is also uncertainty about an apparent slowdown over the last decade in the rate of air temperature increase. While some critics claim that global warming has “stalled,” others point out that, when rising ocean temperatures are factored in, the Earth is actually gaining heat faster than previously anticipated.¶ “Temperatures measured over the short term are just one parameter,” said Dr Tim Barnett of the Scripps Institute of Oceanography in an interview. “There are far more critical things going on; the acidification of the ocean is happening a lot faster than anybody thought that it would, it’s sucking up more CO2, plankton, the basic food chain of the planet, are dying, it’s such a hugely important signal. Why aren’t people using that as a measure of what is going on?”¶ Barnett thinks that recent increases in volcanic activity, which spews smog-forming aerosols into the air that deflect solar radiation and cool the atmosphere, might help account for the temporary slowing of global temperature rise. But he says we shouldn’t let short term fluctuations cause us to lose sight of the big picture.¶ The dispute over temperatures underscores just how formidable the IPCC’s task of modeling the complexity of climate change is. Issued in three parts (the next two installments are due out in the spring), the full version of the IPCC will end up several times the length of Leo Tolstoy’s epic War and Peace. Yet every last word of the U.N. document needs to be signed off on by all of the nations on earth. ¶ “I do not know of any other area of any complexity and importance at all where there is unanimous agreement... and the statements so strong,” Mike MacCracken, Chief Scientist for Climate Change Programs, Climate Institute in Washington, D.C. told me in an email. “What IPCC has achieved is remarkable (and why it merited the Nobel Peace Prize granted in 2007).”¶ Not surprisingly, the IPCC’s conclusions tend to be “conservative by design,” Ken Caldeira, an atmospheric scientist with the Carnegie Institution’s Department of Global Ecology told me: “The IPCC is not supposed to represent the controversial forefront of climate science. It is supposed to represents what nearly all scientists agree on, and it does that quite effectively.”¶ Nevertheless, even these understated findings are inevitably controversial. Roger Pielke Jr., the Director of the Center for Science and Technology Policy Research at the University of Colorado, Boulder suggested a headline that focuses on the cat fight that today’s report is sure to revive: "Fresh Red Meat Offered Up in the Climate Debate, Activists and Skeptics Continue Fighting Over It." Pielke should know. A critic of Al Gore, who has called his own detractors "climate McCarthyists," Pielke has been a lightning rod for the political controversy which continues to swirl around the question of global warming, and what, if anything, we should do about it. ¶ The public’s skepticism of climate change took a dive after Hurricane Sandy. Fifty-four percent of Americans are now saying that the effects of global warming have already begun. But 41 percent surveyed in the same Gallup poll believe news about global warming is generally exaggerated, and there is a smaller but highly passionate minority that continues to believe the whole thing is a hoax. ¶ For most climate experts, however, the battle is long over — at least when it comes to the science. What remains in dispute is not whether climate change is happening, but how fast things are going to get worse.¶ There are some possibilities that are deliberately left out of the IPCC projections, because we simply don’t have enough data yet to model them. Jason Box, a visiting scholar at the Byrd Polar Research Center told me in an email interview that: “The scary elephant in the closet is terrestrial and oceanic methane release triggered by warming.” The IPCC projections don’t include the possibility — some scientists say likelihood — that huge quantities of methane (a greenhouse gas thirty times as potent as CO2) will eventually be released from thawing permafrost and undersea methane hydrate reserves. Box said that the threshhold “when humans lose control of potential management of the problem, may be sooner than expected.”¶ Box, whose work has been instrumental in documenting the rapid deterioration of the Greenland ice sheet, also believes that the latest IPCC predictions (of a maximum just under three foot ocean rise by the end of the century) may turn out to be wildly optimistic, if the Greenland ice sheet breaks up. “We are heading into uncharted territory” he said. “We are creating a different climate than the Earth has ever seen.” ¶ The head of the IPCC, Rajendra Pachauri, speaks for the scientific consensus when he says that time is fast running out to avoid the catastrophic collapse of the natural systems on which human life depends. What he recently told a group of climate scientist could be the most chilling headline of all for the U.N. report: ¶ "We have five minutes before midnight."

#### Only offshore wind can prevent extinction

Thaler 12, Jeff, University of Maine Law School, Fiddling as the World Burns: How Climate Change Urgently Requires a Paradigm Shift in the Permitting of Renewable Energy Projects, http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=2148122

Unfortunately, as the economic and health costs from fossil fuel emissions have grown so too has the byzantine labyrinth of laws and regulations to be navigated before a renewable energy project can be approved, let alone financed and developed. 6 The root cause goes back to the 1970s when some of our fundamental environmental laws were enacted, before we were aware of climate change threats, to slow down the review of proposed projects by requiring more studies of potential project impacts before approval.7 But in our increasingly carbon-based 21st century, we need a paradigm shift. While achieving important goals, those federal laws and regulations, and similar ones at the state and local levels, have become so unduly burdensome, slow, and expensive that they will chill investment in, and kill any significant growth of, renewable carbon-free energy sources and projects, thereby imposing huge economic, environmental and social costs upon both our country and the world8 unless they are substantially changed. Indeed, by 2050 the U.S. must reduce its greenhouse gas emissions by 80% to even stabilize atmospheric levels of carbon, and can do so by increasing generated electricity from renewable sources from the current thirteen percent up to eighty percent9-- but only if there are targeted new policy efforts to accelerate, fifty times faster than since 1990, implementation of clean, renewable energy sources.10 Thus, Part II focuses on one promising technology to demonstrate the flaws in its current licensing permitting regimes, and makes concrete recommendations for reform.11 Wind power generation from onshore installations is proven, generates no GHGs and consumes no water,12 is increasingly cost-competitive with most fossil fuel sources, and can be employed relatively quickly in many parts of the United States and world. Offshore wind power is a relatively newer technology, especially deep-water floating projects, and presently less cost-competitive than onshore wind. However, because wind speeds are on average about ninety percent stronger and more consistent over water than over land, with higher power densities and lower shear and turbulence,13 America’s offshore resources can provide more than our current electricity use.14 Moreover, these resources are near many major cities that are home to much of the population and electricity demand thereby “reducing the need for new high-voltage transmission from the Midwest and Great Plains to serve coastal lands…”15 Therefore, in light Part II’s spotlight on literally dozens of different federal (yet alone state and local) statutes and their hundreds of regulations standing between an offshore wind project applicant and construction, Part III makes concrete statutory and regulatory recommendations to much more quickly enable the full potential of offshore wind energy to become a reality before it is too late. Greenhouse gases (GHGs) trap heat in the atmosphere; the primary GHG emitted by human activities is carbon dioxide (CO2), which in 2012 represented 84 percent of all human-sourced U.S. GHG emissions.16 “The combustion of fossil fuels to generate electricity is the largest single source of CO2 emissions in the nation, accounting for about 40% of total U.S. CO2 emissions and 33% of total U.S. greenhouse gas emissions in 2009.”17 The significant increased concentrations of GHGs into our atmosphere since the 1750 Industrial Revolution began greater use of fossil fuel sources have caused our world to warm and climate to change.18 Climate change may be the single greatest threat to human society and wildlife, as well as to the ecosystems upon which each depends for survival.19 In 1992, the U.S. signed and ratified the United Nations Framework Convention on Climate Change (UNFCC), whose stated objective was: “[s]tabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.”20 In 2007, the Intergovernmental Panel on Climate Change (IPCC) concluded that it is “very likely,” at least ninety percent certain, that humans are responsible for most of the “unequivocal” increases in globally averaged temperatures of the previous fifty years. 21 Yet in the twenty years since the UNFCCC, it also is unequivocal that GHG levels have not stabilized but continue to grow, ecosystems and food production have not been able to adapt, and our heavy reliance on fossil-fueled energy continues “dangerous anthropogenic interference with the climate system.”22 Equally unequivocal is that 2011 global temperatures were “the tenth highest on record and [were] higher than any previous year with a La Nina event, which [normally] has a relative cooling influence”; “the warmest 13 years of average global temperatures [also] have all occurred in the 15 years since 1997.”23 Global emissions of carbon dioxide also jumped 5.9% in 2010 by the largest amount on record -- 500 million extra tons of carbon was pumped into the air, “the largest absolute jump in any year since the Industrial Revolution [began in 1750], and the largest percentage increase since 2003.”24 In order to even have a fifty-fifty chance that the average global temperature will not rise more than 2° C25 beyond the temperature of 1750,26 our cumulative emissions of CO2 after 1750 must not exceed one trillion tons; but by mid-July 2012 we had already emitted over 559 billion tons and rising, and at current rates will emit the trillionth ton in July 2043.27 The consequence is that “the current generation are uniquely placed in human history: the choices we make now—in the next 10-20 years—will alter the destiny of our species (let alone every other species) unalterably, and forever.”28 Unfortunately, by the end of 2011 the more than 10,000 government and U.N. officials from all over the world attending the Durban climate change conference29 agreed that there is a “significant gap between the aggregate effect of Parties’ mitigation pledges in terms of global annual emissions of greenhouse gases by 2020 and aggregate emission pathways consistent with having a likely chance of holding the increase in global average temperature below 2 °C or 1.5 °C above pre-industrial levels.”30 What are some of the growing economic, public health, and environmental costs to our country proximately31 caused by our daily burning of fossil fuels? The National Research Council (NRC) analyzed the "hidden" costs of energy production and use not reflected in market prices of coal, oil, other energy sources, or the electricity and gasoline produced from them. For the year 2005 alone, the NRC estimated $120 billion of damages to the U.S. from fossil fuel energy, reflecting primarily health damages from air pollution associated with electricity generation and motor vehicle transportation. Of that total, $62 billion was due to coal-fired electricity generation; $56 billion from ground transportation (oil-petroleum); and over $2.1 billion from electricity from and heating with natural gas. The $120 billion figure did not include damages from climate change, harm to ecosystems and infrastructure, insurance costs, effects of some air pollutants, and risks to national security, which the NRC examined but did not specifically monetize. 32 The NRC did, however, suggest that under some scenarios climate damages from energy use could equal $120 billion.33 Thus, adding natural resource damages from harm to ecosystems, infrastructure damages, insurance costs, air pollutant costs, and fossil-fueled national security costs to $240 billion, our burning of fossil fuels appears to be costing Americans about $300 billion each year—a “hidden” number likely to be larger in the future. What does the future hold for a carbon-stressed world? Most scientific analyses presently predict that by 2050 the Earth may warm by 2 to 2.5° C due to the rising level of greenhouse gases in the atmosphere; at the high-end of projections, the 2050 warming could exceed 4.5° C.34 But those increases are not consistent globally; rather, “[i]n all possible [predicted] outcomes, the warming over land would be roughly twice the global average, and the warming in the Arctic greater still.”35 For example, the NRC expects that each degree Celsius increase will produce in the U.S. double to quadruple the area burned by wildfires in the western U.S.; a 5-15 percent reduction in crop yields; more destructive power from hurricanes; greater risk of very hot summers; and more changes in precipitation frequency and amounts.36 Globally, a summary of studies predicts that a 1°C global average temperature rise will reduce Arctic sea ice by an annual average of fifteen percent and by twenty-five percent in Septembers 37; at 2°C Europe suffers greater heat waves, the Greenland Ice Sheet significantly melts, and many land and marine species are driven to extinction; at 3°C the Amazon suffers severe drought and resultant firestorms that will release significantly more carbon into the atmosphere38; at 4°C hundreds of billions of tons of carbon in permafrost melt, releasing methane in immense quantities, while the Arctic Ocean ice cap disappears and Europe suffers greater droughts.39 To presently assess what a 5°C rise will mean, we must look back into geological time, 55 million years ago, when the Earth abruptly experienced dramatic global warming due to the release of methane hydrates--a substance presently found on subsea continental shelves. Fossils demonstrate that crocodiles were in the Canadian high Arctic, breadfruit trees were growing on the coast of Greenland, and the Arctic Ocean saw water temperatures of 20 °C within 200km of the North Pole itself.40 And a 6°C average rise takes us even further back, to the end of the Permian period, 251 million years ago, when up to 95% of species relatively abruptly became extinct.41 This may sound extreme, but the International Energy Administration warned this year that the 6°C mark is in reach by 2050 at current rates of fossil fuel usage.42 However, even given the severity of these forecasts, many still question the extent that our climate is changing,43 and thus reject moving away from our largely fossil-fueled electricity, transportation and heating sources. Therefore, in this next subsection I provide the latest scientific data documenting specific climate impacts to multiple parts of U.S. and global daily lives, and the costly consequences that establish the urgency for undertaking the major regulatory reforms I recommend in Part III of this Article. B. Specific Climate Threats and Consequences 1. When Weather Extremes Increase A 2011 IPCC Special Report predicted that it is virtually certain [99-100% probability] that increases in the frequency of warm daily temperature extremes and decreases in cold extremes will occur throughout the 21st century on a global scale. It is very likely [90% to 100% probability] that heat waves will increase in length, frequency, and/or intensity over most land areas…. It is very likely that average sea level rise will contribute to upward trends in extreme sea levels and extreme coastal high water levels. 44 Similarly, a House of Representatives Committee report (ACESA Report) found that “[t]here is a broad scientific consensus that the United States is vulnerable to weather hazards that will be exacerbated by climate change.”45 It also found that the “cost of damages from weather disasters has increased markedly from the 1980s, rising to more than $100 billion in 2007. In addition to a rise in total cost, the frequency of weather disasters costing more than one billion dollars has increased."46 In 2011, the U.S. faced the most billion-dollar climate disasters ever, with fourteen distinct disasters alone costing at least $53 billion to our economy.47 In the first six months of 2012 in the U.S., there were more than 40,000 hot temperature records, horrendous wildfires, major droughts, oppressive heat waves, major flooding, and a powerful derecho wind storm.48 The IPCC Fourth Assessment Report identified impacts from growing weather hazards upon public health to include: more frequent and more intense heat waves; more people suffering death, disease and injury from floods, storms, fires, and droughts; increased cardio-respiratory morbidity and mortality associated with ground-level ozone pollution; changes in the range of some infectious disease carriers spreading, for example, malaria and the West Nile virus; and increased malnutrition and consequent disorders.49 As noted above, $120 billion per year of the NRC’s Hidden Energy report’s damage assessment were based on health damages,50 including an additional 10,000-20,000 deaths per year.51 And by 2050, cumulative heat-related deaths from unabated climate change are predicted to be an additional 33,000 in the forty largest U.S. cities, with more than 150,000 additional deaths by 2100.52 Weather extremes also threaten our national security, whose policy is premised on stability. In 2007 the CNA Corporation’s report National Security and the Threat of Climate Change described climate change as a “threat multiplier for instability” and warned that p]rojected climate change poses a serious threat to America's national security. The predicted effects of climate change over the coming decades include extreme weather events, drought, flooding, sea level rise, retreating glaciers, habitat shifts, and the increased spread of life-threatening diseases. These conditions have the potential to disrupt our way of life and to force changes in the way we keep ourselves safe and secure.53 The following year, in the first-ever U.S. government analysis of climate change security threats, the National Intelligence Council issued an assessment warning, in part, that climate change could threaten U.S. security by leading to political instability, mass movements of refugees, terrorism, and conflicts over water and other resources.54 2. When Frozen Water Melts In 2007 the IPCC predicted that sea levels would rise by 8 to 24 inches above current levels by 2100; since then, however, numerous scientists and studies have suggested that the 2007 prediction is already out-of-date and that sea levels will likely rise up to 1.4 meters (55 inches) given upwardly trending CO2 emissions.55 The 2009 ACESA Report found that rising sea levels are already causing inundation of low-lying lands, corrosion of wetlands and beaches, exacerbation of storm surges and flooding, and increases in the salinity of coastal estuaries and aquifers…. Further, about one billion people live in areas within 75 feet elevation of today's sea level, including many US cities on the East Coast and Gulf of Mexico, almost all of Bangladesh, and areas occupied by more than 250 million people in China.56 This year NASA’s Chief Scientist testified to Congress that two-thirds of sea level rise from the last three decades is derived from the Greenland and Antarctic ice sheets and the melting Arctic region, then warned: [t]he West Antarctic ice sheet (WAIS), an area about the size of the states of Texas and Oklahoma combined….contains the equivalent of 3.3 m of sea level, and all that ice rests on a soft-bed that lies below sea level. In this configuration, as warm seawater melts the floating ice shelves, causing them to retreat and the glaciers that feed them to speed up, there is no mechanism to stop the retreat and associated discharge, if warming continues. Thus the WAIS exhibits great potential for substantial and relatively rapid contributions to sea level rise. … In Greenland, the situation is not as dramatic, since the bed that underlies most of the ice is not below sea level, and the potential for unabated retreat is limited to a few outlet glaciers. In Greenland, however, summer air temperatures are warmer and closer to ice’s melting point, and we have observed widespread accumulation of meltwater in melt ponds on the ice sheet surface..57 In the West Antarctic ice sheet region, glacier retreat appears to be widespread, as the air has “warmed by nearly 6°F since 1950.”58 As for Greenland’s Ice Sheet, it also is at greater risk than the IPCC had thought. Recent studies with more complete modeling suggest that the warming threshold leading to an essentially ice-free state is not the previous estimate of an additional 3.1°C, but only 1.6°C. Thus, the 2°C target may be insufficient to prevent loss of much of the Ice Sheet and resultant significant sea level rise.59 The ACESA Report also identified the Arctic as “one of the hotspots of global warming”60 because “[o]ver the past 50 years average temperatures in the Arctic have increased as much as 7 °F, five times the global average.”61 Moreover, in “2007, a record 386,000 square miles of Arctic sea ice melted away, an area larger than Texas and Arizona combined and as big a decline in one year as had occurred over the previous decade”.62 “Arctic sea ice is melting faster than climate models [had] predict[ed], and is about thirty years ahead” of the 2007 IPCC predictions, thus heading toward the Arctic Ocean being ice-free in the late summer beginning sometime between 2020 and 2037.63 How is the Arctic’s plight linked to non-Arctic impacts? “The Arctic region arguably has the greatest concentration of potential tipping elements in the Earth system, including Arctic sea ice, the Greenland ice sheet, North Atlantic deep-water formation regions, boreal forests, permafrost and marine methane hydrates.”64 Additionally: Warming of the Arctic region is proceeding at three times the global average….Loss of Arctic sea ice has been tentatively linked to extreme cold winters in Europe… Near complete loss of the summer sea ice, as forecast for the middle of this century, if not before, will probably have knock-on effects for the northern mid-latitudes, shifting jet streams and storm tracks.65 Since 1980, sea levels have been rising three to four times faster than the global average between Cape Hatteras, N.C. and Boston.66 “[P]ast and future global warming more than doubles the estimated odds of ‘century’ or worse floods occurring within the next 18 years” for most coastal U.S. locations.67 Although land-based glacier melts are not major contributors to sea level rise, they do impact peoples’ food and water supplies. Virtually all of the world's glaciers, which store seventy-five percent of the world’s freshwater, are receding in direct response to global warming, aggravating already severe water scarcity--both in the United States and abroad.68 While over fifteen percent of the world population currently relies on melt water from glaciers and snow cover for drinking water and irrigation for agriculture, the IPCC projects a sixty percent volume loss in glaciers in various regions and widespread reductions in snow cover throughout the twenty-first century.69 Likewise, snowpack has been decreasing, and it is expected that snow cover duration will significantly decrease in eastern and western North America and Scandinavia by 2020, and globally by 2080.70 Climate change thus increases food insecurity by reducing yields of grains, such as corn and wheat, from increased water scarcity and intensification of severe hot conditions, thereby causing corn price volatility to sharply increase.71 Globally, the number of people living in "severely stressed" river basins will increase “by one to two billion people in the 2050s”…About two-thirds of the global land area is expected to experience increased water stress”.72 3. When Liquid Water Warms Over the past century, oceans, which cover seventy percent of the Earth’s surface, are warming. Global sea-surface temperature has increased about 1.3°F, while the heat has also penetrated almost two miles into the deep ocean.73 This increased warming is contributing to the destruction of seagrass meadows, causing an annual release back into the environment of 299 million tons of carbon.74 Elevated atmospheric carbon dioxide concentrations also are leading to higher absorption of CO2 into the upper ocean, making the surface waters more acidic (lower Ph).75 “[O]cean chemistry currently is changing at least 100 times more rapidly than it has changed during the 650,000 years preceding our [fossil-fueled] industrial era.”76 The acidification has serious implications for the calcification rates of organisms and plants living at all levels within the global ocean. Coral reefs, the habitat for about a quarter of (over a million ) of marine species, are collapsing, endangering more than a third of all coral species77; indeed, temperature thresholds for the majority of coral reefs worldwide are expected to be exceeded, causing mass bleaching and complete coral mortality.78 “[T]he productivity of plankton, krill, and marine snails, which compose the base of the ocean food-chain, [also] declines as the ocean acidifies,”79 adversely impacting populations of everything from whales to salmon80-- who also are being harmed by the oceans’ warming up. 81 Extinctions from climate change also are expected to be significant and widespread. The IPCC Fourth Assessment found that “approximately 20-30% of plant and animal species assessed so far are likely to be at increased risk of extinction if increases in global average temperature exceed 1.5-2.5°C82—a range likely to be exceeded in the coming decades. “[R]ecent studies have linked global warming to declines in such [] species as [] blue crabs, penguins, gray whales, salmon, walruses, and ringed seals[; b]ird extinction rates are predicted to be as high as 38 percent in Europe and 72 percent in northeastern Australia, if global warming exceeds 2°C above pre-industrial levels.”83 Between now and 2050, Conservation International estimates one species will face extinction every twenty minutes; the current extinction rate is one thousand times faster than the average during Earth's history, 84 in part because the climate is changing more than 100 times faster than the rate at which many species can adapt.85 4. When Land Dries Out The warming trends toward the Earth’s poles and higher latitudes are threatening people not just from melting ice and sea level rise, but also from the predicted thawing of permafrost of thirty to fifty percent by 2050, and as much or more of it by 2100.86 “The term permafrost refers to soil or rock that has been below 0°C (32°F) and frozen for at least two years.”87 Permafrost underlies about twenty-five percent of the land area in the northern hemisphere, and is “estimated to hold 30 percent or more of all carbon stored in soils worldwide”—which equates to four times more than all the carbon humans have emitted in modern times.88 Given the increasing average air temperatures in Eastern Siberia, Alaska and northwestern Canada, thawing of the Northern permafrost would release massive amounts of carbon dioxide (doubling current atmospheric levels) and methane89 into the atmosphere. Indeed, there are about 1.7 trillion tons of carbon in northern soils (roughly twice the amount in the atmosphere), about eighty-eight percent of it in thawing permafrost.90 Permafrost thus may become an annual source of carbon equal to fifteen to thirty-five percent of today's annual human emissions.91 But like seagrass meadows and unlike power plant emissions, we cannot trap or prevent permafrost carbon emissions at the source. Similarly, forests, which “cover about 30 percent of the Earth's land surface and hold almost half of the world's terrestrial carbon…act both as a source of carbon emissions to the atmosphere when cut, burned, or otherwise degraded and as a sink when they grow...”92 A combination of droughts, fires, and spreading pests, though, are causing economic and environmental havoc:. “In 2003, [] forest fires in Europe, the United States, Australia, and Canada accounted for more global [carbon] emissions than any other source...”93 There have been significant increases in both the number of major wildfires and the area of forests burned in the U.S. and Canada.94 Fires fed by hot, dry weather have killed enormous stretches forest in Siberia and in the Amazon, “which recently suffered two ‘once a century’ droughts just five years apart”.95 Climate change also is exacerbating the geographic spread and intensity of insect infestations. For example, in British Columbia “the mountain pine beetle extended its range north and has destroyed an area of soft-wood forest three times the size of Maryland, killing 411 million cubic feet of trees—double the annual take by all the loggers in Canada. Alaska has also lost up to three million acres of old growth forest to the pine beetle.”96 Over the past fifteen years the spruce bark beetle extended its range into Alaska, where it has killed about 40 million trees, “more than any other insect in North America's recorded history”.97 The drying and burning forests, and other increasingly dry landscapes, also are causing “flora and fauna”[ to move] to higher latitudes or to higher altitudes in the mountains”. 98 The human and environmental costs from failing to promptly reduce dependence on carbon-dioxide emitting sources for electricity, heating and transportation are dire and indisputable. Rather than being the leader among major countries in per capita GHG emissions, our country urgently needs to lead the world in cutting eighty percent our emissions by 2050, and using our renewable energy resources and technological advances to help other major emitting countries do the same. However, significantly increasing our use of carbon-free renewable sources to protect current and future generations of all species—human and non-human—requires concrete changes in how our legal system regulates and permits renewable energy sources. One of those sources with the potential for significant energy production and comparable elimination of fossil fueled greenhouse gases near major American and global population sources is offshore wind. II. THE OFFSHORE WIND POWER PERMITTING AND LEASING OBSTACLE COURSE A. Overview of Technology and Attributes As noted in the Introduction, offshore wind energy projects have the potential to generate large quantities of pollutant-free electricity near many of the world’s major population centers, and thus to help reduce the ongoing and projected economic, health, and environmental damages from climate change.99 Wind speeds over water are stronger and more consistent than over land, and “have a gross potential generating capacity four times greater than the nation’s present electric capacity.”100 The net capacity factor101 for offshore turbines is greater than standard land-based turbines, and their blade-tip speeds are higher than their land-based counterparts.102 Offshore wind turbine substructure designs mainly fall into three depth categories: shallow (30 m or less), transitional (>30 m to 60 m), and deep water (>60 m).103 All of the grid-scale offshore wind farms in Europe have monopole foundations embedded into the seabed in water depths ranging from 5m to 30m; the proposed American projects such as Cape Wind in Massachusetts and Block Island in Rhode Island would likewise be shallow-water installations.

**The most comprehensive evidence proves offshore wind can power globally**

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**Against a background of an environmental and resources crisis, the ongoing development of clean energy sources seems** increasingly **inevitable** **if we are to deal with climate change and the energy crisis** [1] and [2]. **Currently, the utilization of solar and on-land wind** energy **is trending towards industrialization**, although both are restricted by geographical factors. Despite **nuclear power** generation being an effective energy source, it **is** also **vulnerable to natural disasters and human error.** For example, both the nuclear leakage caused by the tsunami in January 2011 in Japan, and the Chernobyl nuclear disaster caused by operator errors in 1986, resulted in extremely serious consequences. **Offshore wind energy offers substantial advantages** over land-based turbines, **including resource storage and greater stability** [3], [4], [5] and [6]. **Electivity generation by wind power is the principal mode of wind energy resource development, but wind power also has wide applications within navigation**, **water pumping, wind-heating**, etc. However, **offshore wind power generation can provide the solutions of most practical value and so meet urgent demands associated with problems such as coastal cities with a high demand for electricity**, **thereby closing the huge energy gap, and can serve remote islands, lighthouses at sea, marine weather buoys, and other power supply scenarios** in marine areas. **This** largely **impeded the economic leap of the coastal city and rural island**, meanwhile **this** predicament **promises offshore wind power with broad prospects**. Consequently, the promise of abundant wind energy has become a particular area of interest for developed countries [7] and [8].

**The distribution** **of wind energy resource shows significant regional and seasonal differences**, and in the large-scale development of wind power, the basic principle is one of ‘resource evaluation and planning ahead’. Blanco [9] calculated the onshore and offshore wind energy cost in Europe and pointed out that the local wind resource is by far the most important factor affecting the profitability of wind energy investments. An on-land wind energy distribution map of the United State was drawn up in 1986 using observations from 1000 weather stations [10]. The Risoe National Laboratory in Denmark collected observational data from 220 stations in 12 European countries, and then developed an on-land wind-energy distribution map for Europe [11]. **Previous researchers have made great contributions to the assessment of the potential of wind energy**, but due to the lack of offshore wind data, **most previous studies have focused on land, coastal, or local sea sites,** rather than the global ocean wind-energy resource. In 1994, **Gaudiosi** [12] **presented the characteristics of offshore wind-energy activity** for the Mediterranean and other European seas. Emphasis was given to wind resource assessment, technical development, applications, economics, and environment. To promote wind energy in Senegal, Youm et al. [13] analyzed the wind energy potential along its northern coast, using wind data collected over a period of 2 years at five different locations. With an annual mean wind speed of 3.8 m/s, an annual energy of 158 kWh/m2 could be extracted. Results show that a potential use of wind energy in these locations is water pumping in rural areas. Karamanis [14] analyzed the wind energy resources on the Ionian–Adriatic coast of southeast Europe and showed that the mean wind-power densities were less than 200 W/m2 at 10 m height, suggesting the limited suitability of these sites for the usual wind-energy applications. However, these results indicate that wind power plants, even in lower-resource areas, can be competitive in terms of the energy payback period and reducing greenhouse emissions. With the rapid development of ocean observation technology, increasing amounts of satellite wind data have been used to analyze wind-energy resources. **In 2008, NASA** [15] and Liu et al. [16] **contoured global wind-power density** in JJA (June, July, and August) and DJF (December, January, and February), using QuikSCAT wind data. **They found that the wind power density in the winter hemisphere is significantly higher than that in the summer hemisphere**. During JJA, the regions of highest wind power density are located mainly around the Southern Hemisphere westerlies (ca. 1000–1400 W/m2) and the waters surrounding Somalia (ca. 1200 W/m2). During DJF, the areas of highest wind power density are located mainly around the Northern Hemisphere westerlies (ca. 1000–1400 W/m2). Obviously, the wind power around the Southern Hemisphere westerlies during DJF is less than that during JJA.

However**, until now, there has been no comprehensive assessment of the distribution of the grade** (see Table 1) **of global ocean wind** energy resources. **This study presents a grade classification map of the global ocean wind energy resource** based on CCMP (cross-calibrated, multi-platform) wind field data for the period 1988–2011, **and also calculates**, for the first time**, the total storage and effective storage of wind energy across the global ocean** (on a 0.25°×0.25° grid). **Synthetically considering the wind power density, the distribution of wind energy levels and effective wind speeds, the stability and long-term trend of wind power density, and wind energy storage**, we were able to analyze and regionalize the global ocean wind energy resource. The aim of this research is to fill the gap in our understanding in this field and provide guidance for future scientific research and development into wind energy resources such as electricity generation, water pumping, and wind-heating. We also hope to make a contribution towards alleviating the energy crisis and promoting sustainable development.

### 1ac Solvency

#### The plan ensures offshore wind development --- it maintains NEPA reviews to prevent environmentally destructive over development

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V The Coastal Zone Management Act: A Potential Solution

The Cape Wind example poignantly illustrates the disconnect between local costs and national benefits with regard to offshore wind power development, and the potential for local interests to hijack state and federal processes and stall a project. The federal government needs a stronger role in the process to counteract narrow-minded state and local opposition. With a well-integrated federal perspective, agencies and developers could properly weigh regional, national, and global benefits of offshore wind against its limited local costs.

The CZMA presents an obvious starting point for a revised regulatory framework. It already covers the states' coastal zones - that is, the area three miles or less from the shore - and leaves states with substantial power. n227 However, it currently does not give sufficient weight to the national interest in the benefits of offshore wind power. Some academics have come to a similar conclusion, but their revisions are tentative and minor. n228 Now is a time for more decisive and bold action. With the change in the United States' administration, the deteriorating climate situation, and the nation's ongoing energy and economic crises, the country has both the opportunity and the need to make effective changes. However, setting up an entirely new regulatory scheme, as some have suggested, n229 goes too far: it fails to acknowledge what Congress can realistically accomplish and ignores the tools we already have in our hands in the CZMA. With some strengthening revisions, the CZMA might become the simple solution that helps the United States turn offshore wind on.

A. An Ineffective Tool to Promote Offshore Wind

The CZMA has had some measure of success - almost every coastal state participates and it has led states to view their Coastal Zones as "unified ecological areas." n230 Still, despite clear undertones of environmental protection, the Act has failed to serve as an effective tool to promote offshore wind power development, even at well-suited sites such as the location of the Cape Wind project. The CZMA's failure with respect to offshore wind can be attributed to lack of specificity in the terms of the Act. That is, without more [\*1658] explicit guiding principles and requirements, states can fulfill the process required by the CZMA - the development of CZMPs - while not meeting any particular standards. n231 This leaves states with substantial discretion, but without a coherent, overarching goal driven by a federal plan. In particular, with its decentralized structure and only brief explicit mention of the national benefits of offshore energy development, the CZMA gives insufficient encouragement to states to recognize the benefits of offshore wind power in their CZMPs. n232 For example, the CZMA explicitly mandates that coastal states "anticipate and plan" for climate change and resulting sea level rise and other adverse effects. n233 However, it fails to specify the role for offshore wind energy or offshore renewable energy, even in a general manner, in such climate-change planning and in state CZMPs.

Once the Secretary of Commerce has determined that a state has given "adequate consideration" to the "national interest" in its CZMP, the federal government no longer has control over energy facility development in state waters. n234 Thus coastal states can block proposed turbines in state waters and proposed transmission lines from offshore turbines proposed for federal waters. Or, as in the Cape Wind saga, most of which occurred before the Oceans Act was passed, states can simply not encourage, or even address, renewable energy production, giving proponents no mandate to rely on in litigation and administrative processes. In a more extreme situation, through federal consistency review, a coastal state retains a "reverse-preemption power" for federal projects and permits in state and federal waters, as long as these projects affect the state's coastal zone. n235 Therefore, as projects outside of a state's CZMP will frequently impact a state's coastal zone, states can also potentially block permitting and/or construction of turbines not only in their coastal zones, but also in federal waters outside of their CZMP's jurisdiction. Through these two mechanisms - state CZMPs and federal consistency review - local interests focused on local costs in coastal states can stall or block offshore wind power development, despite compelling national and global reasons to promote it. The CZMA offers no support to counteract this local opposition, such as a pro-offshore wind federal mandate.

In addition, the federal government has offered only low levels of funding for renewable energy activity offshore. n236 When this factor is combined with the regulatory uncertainty resulting from so much discretion given to each individual state, it is not surprising that the CZMA has been an ineffective tool for promoting offshore wind power development.

[\*1659]

B. Denmark: An Example of Offshore Success

Not surprisingly, offshore wind power development has been most successful in places with a powerful, centralized government implementing a strong pro-offshore wind power policy. n237 Denmark in particular has been successful in its promotion of wind power, especially offshore wind power. n238 By the end of 2006, Denmark was generating 20 percent of its electricity from wind, both offshore and onshore. n239 Since 1991, Denmark has erected eight offshore wind farms, with a total capacity of 423 MW, n240 meeting about 4.5 percent of Denmark's power needs. n241 The Danish Energy Authority, the governmental agency that oversees energy facility construction, required the construction of the two largest Danish offshore wind farms - Horns Rev and Nysted. n242 Its requirement resulted from a governmental action plan outlining the expansion of wind power in Denmark, which emphasized the expansion of offshore wind power in particular. n243

The Danish government has promoted wind power generation for decades, and the Danish Energy Authority serves as the centralized head of the Danish government's offshore wind policy implementation. n244 The Energy Authority is a "one stop shop" for the many parties interested in offshore wind power development. n245 It determines whether to pursue an Environmental Impact Assessment, which it then uses, along with relevant legislation, to determine whether to allow offshore development. n246

At the same time, the government has worked to win support from a wide range of stakeholders, including energy companies, industry, municipalities, research institutions, nongovernmental organizations, and consumers. n247 In localities around the Horns Rev offshore wind farm, people expressed concerns before construction regarding the lack of local involvement in the process, the negative visual and aesthetic impact of the project, and the resulting negative effect on tourism. n248 After construction, and after no drop in tourism occurred, attitudes gradually shifted to neutral or even somewhat positive towards the [\*1660] project. n249 Denmark offers a lesson in the power of constructed offshore wind projects to change negative attitudes. n250 The same transformation might be possible in the United States.

In 2007, after nearly a year of negotiations, the Danish government committed to increasing its wind power generation capacity by 1,300 MW by 2012, bringing its capacity to a total of 4,400 MW, n251 or nearly 50 percent of Denmark's total power needs. n252 This increase will include 400 MW of new offshore generation on existing wind farms, Horns Rev and Nysted, and at least 400 MW of offshore generation in new wind farms. n253 The Danish government's commitment to renewable energy, wind power, and, in particular, offshore wind power, fits into the European Union's broad pro-renewable energy goals. Specifically, the EU aims to generate 21 percent of its electricity from renewable energy sources by 2010 as part of its efforts to combat climate change and to reduce its dependence on coal, oil, and natural gas. n254 A number of other EU countries also have strong offshore wind programs. n255 Although Denmark has traditionally been touted as the leader in offshore wind production, the United Kingdom recently overtook it with a total offshore generation capacity of 590 MW. n256

C. Suggested Revisions to the CZMA

Despite its ineffectiveness to date, the CZMA has great potential to serve as a framework for offshore wind power development. With some simple but clear revisions that could enhance federal influence, mimicking Denmark's stronger centralized control of energy development, the CZMA could be used to mandate offshore wind power-friendly CZMPs where applicable. At the same time, the Act will continue to uphold the federalism values ingrained in the management of coastal resources in the United States. These revisions should be:

To include an explicit mandate for offshore wind power development where appropriate and feasible on all U.S. coasts;

To require revisions to CZMPs in accordance with this new mandate; and

[\*1661]

To increase funding and other incentives for offshore wind power development.

Revising the CZMA is not a new idea for Congress. For example, during the Cape Wind federal jurisdiction saga, Cong. William D. Delahunt (D-MA) proposed a set of revisions to the CZMA n257 in response to the Cape Wind federal jurisdiction confusion. n258 Although these did not pass, n259 and focused on agency jurisdiction over offshore wind rather than the promotion of offshore wind, the proposal at least demonstrates some willingness in Congress to take on the idea of revising the CZMA. Indeed, the CZMA has been amended in the past, for example to encourage aquaculture. n260

In a promising sign of state willingness to cooperate in coastal management, Massachusetts and fifteen other states participated in MMS's initial Programmatic Environmental Impact Statement (PEIS) process, which was MMS's effort to determine how to address offshore wind permitting. n261 Several commenters in the process, including representatives of state agencies, urged MMS to coordinate with state authorities in finding suitable locations for offshore wind facilities. n262 More recently, Massachusetts's Ocean Management Plan explicitly suggests coordination with MMS for offshore renewable energy siting. n263

1. Mandate Offshore Wind Power Development

Although the United States has evolved a fundamentally different approach to coastal management from Denmark, revisions to the CZMA should shift our national approach toward increased, centralized influence and coordination that has worked so effectively in that country. Currently the CZMA recognizes the potential importance of offshore energy development and requires the consideration of the development of energy facilities that "are of greater than local significance" in state plans. n264 These vague standards are not sufficient, however, as evidenced by the failure of offshore wind power development in the United States, and in Cape Wind in particular. The CZMA should be revised to include an explicit mandate to states to permit, and possibly even to promote, offshore wind energy and other renewable energy development in appropriate locations. The term "development" should broadly encompass generation facilities as well as transmission lines and other works required to allow facilities to operate effectively. While it is important for states to continue to respond to local concerns and negative impacts, the federal [\*1662] government needs a stronger voice in favor of the national interest in offshore wind power development.

This new mandate would not have a detrimental effect on the federal government's broad goal of environmental protection. It would not give offshore wind power developers a right to develop anywhere off the coast, but it would push development in locations that are appropriate environmentally. Along with studies relating to optimal coastal development conditions, for example, wind pattern studies, MMS's PEIS could serve as a useful starting point in defining what "appropriate locations" should entail. The PEIS examines "the potential environmental consequences of implementing the [Alternative Energy and Alternate Use Program on the OCS] and will be used to establish initial measures to mitigate environmental consequences." n265 Individual projects would almost certainly still require individual EISs under NEPA, which would further ensure environmentally appropriate offshore renewable development. In fact, NEPA would effectively serve as a backstop to the development that a revised CZMA would encourage, as it would discourage or prohibit environmentally harmful overdevelopment.

This revision to the CZMA could change how coastal states treat offshore wind power development in two ways. First, it would require changes to many states' CZMPs to reflect the new national priority for offshore renewable energy sources, including offshore wind. Second, the new CZMA mandate would affect how states approach the federal consistency review process with respect to renewable permitting and construction in state and federal waters. n266 The federal government would likely certify offshore wind projects as consistent with states' revised CZMPs because development of offshore renewable energy would be an explicit goal in the states' CZMPs under the revised CZMA. Similarly, states would less frequently be able to object to these determinations, because they would have difficulty finding inconsistency with their revised state CZMPs. n267 And even if a coastal state did object to a federal determination, the Secretary of Commerce could overrule the state's objection as inconsistent with the new objectives of the CZMA. n268 Thus, the revised CZMA would more effectively compel states to consider the national benefits of offshore wind in addition to just their consideration of the local costs. Further, it would give offshore wind proponents support in combating local opposition to projects.

This revision could come in tandem with revisions to the Energy Policy Act or as part of an entirely new energy agenda. President Barack Obama has [\*1663] repeatedly expressed interest in a new trajectory for energy policy in the United States that focuses on climate change, energy efficiency, renewable energy, and energy independence. n269 Congress could take advantage of this momentum to make these related revisions to the CZMA as well. In fact, reform of an existing, familiar set of regulations, like the CZMA, may be more palatable to Congress, and an easy first step to take with regard to renewable energy.

2. Require Revisions to State Plans

To give this new offshore renewable energy mandate effect, Congress or the Secretary of Commerce should instruct states to revise their CZMPs in order to achieve full compliance with the new requirement. n270 Once the plans are revised, the CZMA already provides the Secretary of Commerce with a mechanism to ensure there are no gaps or deficiencies in state plans. As noted previously, before approving a state's CZMP, the Secretary of Commerce must ensure the CZMP is in compliance with the CZMA and all other additional rules and regulations the Secretary has promulgated. n271 If the CZMA's "purposes" were to include promotion of offshore wind power generation, the Secretary of Commerce could make sure the CZMPs carry out that purpose.

Thus, states could retain some measure of control, but the broader benefits of offshore wind power development would be integrated into both the CZMA and the CZMPs. As noted previously, CZMPs revised in favor of offshore wind would also give proponents of development more statutory support in any state litigation by offshore wind opponents and may even deter such litigation altogether.

3. Increase Funding and Incentives for Offshore Wind

As previously discussed, a federal agency, MMS, is responsible for siting and permitting offshore wind power generation facilities. n272 Although the CZMA alludes to the ability of the federal government to play another role by [\*1664] encouraging energy facility development through "financial assistance," n273 it is once again vague. Congress would need to back up its commitment to offshore wind power development - and renewable energy, in general - with funding increases and incentives for such development in particular. Such assistance could include incentives for not only generation facilities, but also transmission and distribution lines, and any other related works necessary for functioning offshore wind farms. Funding could be dependent on state CZMP revision, as described above, to encourage prompt revision. Congress has already recognized the importance of tax incentives for renewable energy in its renewal of the Production Tax Credit through 2012. n274 Other studies have shown a correlation between these credits and increases in renewable energy investment, and have postulated more significant increases with a longer-term incentive. n275

While this revision would likely be the hardest of the three for Congress to swallow, particularly during an economic downturn, there is at least one compelling reason for Congress to consider it: offshore wind power development can create jobs, both regionally and nationally. n276 Indeed, President Obama has explicitly acknowledged the potential for clean energy to create new jobs, with particular urgency as the United States continues to see high rates of unemployment. n277 In addition, the President has acknowledged the importance of public spending to stimulate the economy. n278 In particular, he has promised to spend significantly on renewable energy, in part because of its job-creation potential. n279 Or, as with the other aforementioned revisions to the CZMA, these incentives might be tied into broader revisions to the Energy Policy Act or the creation of new climate change legislation. n280 While this idea might buck historical trends related to federal involvement in Coastal Zone development, it is well within the realm of practical policies already being discussed.

#### Only a federal mandate can guarantee the expansion of wind energy

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However, the Oceans Act and Ocean Management Plan, though promising, have come late in the game for Cape Wind, nine long years after the project sought its initial federal permits. For most of this time, Cape Wind proponents had to fight state and local interests at every turn, at both the state and federal levels, with no explicit state or federal mandate to back them up in administrative processes or litigation. Although Massachusetts finally appears to be explicitly acknowledging the broad benefits of offshore wind power, other states may not have such foresight, and other projects may face the same uphill battle as Cape Wind against powerful opposition focused on local costs. Without a stronger federal policy in the process promoting the broad benefits of [\*1657] offshore wind, and one with a congressional mandate and requirements to back it up, offshore wind power development is sure to be slow. The CZMA offers a potential way for the federal government to assert itself and the benefits of offshore wind in state and local decision making.

## Case

### 2ac Plan Increases Offshore Wind

#### Resolving the cost-benefit gap is key to expand offshore wind --- local forces are able to exert inordinate control and block projects

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In spite of the impressive growth in the U.S. wind industry, the United States has not kept pace with other countries in developing offshore wind facilities. Though offshore wind has been used in other countries for nearly twenty years, n11 none of the United States' current wind capacity comes from offshore wind. n12 An estimated 900,000 MW of potential wind energy capacity exists off the coasts of the United States n13 - an estimated 98,000 MW of it in [\*1633] shallow waters. n14 This shallow-water capacity could power between 22 and 29 million homes, n15 or between 20 and 26 percent of all U.S. homes. n16 The nation has failed to take advantage of this promising resource.

This failure can be ascribed in part to the unevenly balanced distribution of the costs and benefits of offshore wind technology, as well as to the incoherent regulatory framework in the United States for managing coastal resources. n17 While the most compelling benefits of offshore wind are frequently regional, national, or even global, the costs are almost exclusively local. The U.S. regulatory framework is not set up to handle this cost-benefit gap. As a result, local opposition has stalled offshore wind power development, and inadequate attention has been paid to its wide-ranging benefits.

The Cape Wind project in Massachusetts is a stark example of how local forces have hindered offshore wind power development. The project is expected to have a maximum production of 450 MW and an average daily production of 170 MW, or 75 percent of the 230-MW average demand of Cape Cod and neighboring islands. n18 In addition to this electricity boon to energy-constrained Massachusetts, n19 Cape Wind will reduce regional air pollution and global carbon dioxide emissions. n20 Nonetheless, local opponents to Cape Wind protest its effect on the surrounding environment, including its aesthetic impacts. n21 Without an effective way to champion the regional, national, and [\*1634] global benefits of offshore wind, policymakers have been unable to keep local interests from controlling the process through protest and litigation. After about ten years of waiting and fighting, Cape Wind developers have still not begun construction. Although the failure of offshore wind power in the United States is discouraging, the Coastal Zone Management Act (CZMA) offers a potential solution. With specific revisions, the CZMA could serve as the impetus that offshore wind power needs for success in the United States.

#### Plan ensures effective offshore wind development

Schroeder, 10 --- J.D., University of California, Berkeley, School of Law (October 2010, Erica, California Law Review, “Turning Offshore Wind On,” Vol. 98, No, 5, Lexis, JMP)

Conclusion

A revised CZMA would provide a promising solution to the problems that offshore wind energy and other offshore renewable energy sources have faced in the United States. Specifically, offshore wind power development has faced repeated failures due to the mismatch between local costs and national benefits, and the absence of a regulatory framework to reconcile them. While it may come too late to make a difference for Cape Wind, a new CZMA could still ensure success for offshore wind power in other locations around the United States.

Still, to be truly effective, revising the CZMA needs to be just one step in a broader offshore wind or renewable energy program. While a new CZMA would address problems related to offshore wind farm siting, this is just one barrier that offshore wind power development needs to overcome. For example, as with all renewable energy sources, the importance of positive federal government policies and incentives, such as the production tax credits mentioned previously, are key to offshore wind power's success.

Under the Obama administration, which seems especially receptive to renewable energy promotion, the United States has the exciting opportunity to make great strides with offshore wind power development and renewable energy overall. Indeed, although Congress has struggled, it continues to debate various climate change legislative proposals, many of which relate closely to renewable energy promotion. n290 President Obama also continues to stress the importance of renewable energy to the future of the United States. n291 Denmark exemplifies how successful offshore wind power development can be under the influence of a government with a positive outlook on renewable energy production that pervades multiple agencies and programs in the government. n292 Indeed, President Obama has acknowledged Denmark and its successes in his efforts to promote offshore wind power. n293 Furthermore, an overarching pro-renewable policy could instigate the development of various renewable technologies - including offshore wind power, which has seen substantial success in not only Denmark, but in other EU countries. n294

Even without firm policies in place and no projects yet built, offshore wind project proposals are sprouting up across the United States. As of the end [\*1667] of 2008, eleven projects had been proposed in New Jersey, Rhode Island, Delaware, New York, Georgia, Texas, Ohio, and Maine; combined, these projects represent a total of 2,075 MW of capacity. n295 MMS has granted or is expected to grant federal approval to most of these projects. n296 Eleven more projects were in earlier stages of development at the end of 2008. n297 Despite these promising signs, all these projects stand to face the same obstacles as the Cape Wind project as long as the current regulatory framework remains in effect. With revisions to the CZMA, Congress can help make sure these projects move forward, and pave the way for more in the future.

### Incentives Solvency

#### Empirically incentives boost wind energy

Schroeder, 10 --- J.D., University of California, Berkeley, School of Law (October 2010, Erica, California Law Review, “Turning Offshore Wind On,” Vol. 98, No, 5, Lexis, JMP)

Technological improvements in the 1990s that resulted in increased turbine reliability and lower production costs helped to spur wind power development. n30 Since 2006, the federal government has been providing significant support to wind power, importantly in the form of tax incentives, which has allowed for record growth for wind power in the United States. n31 None of this growth has occurred offshore, however.

#### Federal incentives are key to offshore wind development

Schroeder, 10 --- J.D., University of California, Berkeley, School of Law (October 2010, Erica, California Law Review, “Turning Offshore Wind On,” Vol. 98, No, 5, Lexis, JMP)

Still, to be truly effective, revising the CZMA needs to be just one step in a broader offshore wind or renewable energy program. While a new CZMA would address problems related to offshore wind farm siting, this is just one barrier that offshore wind power development needs to overcome. For example, as with all renewable energy sources, the importance of positive federal government policies and incentives, such as the production tax credits mentioned previously, are key to offshore wind power's success.

#### Stable federal financial incentives are key to effectively grow the industry

Plovnick, 12 (Amy, 12/19/2012, “Offshore Wind Energy Investments Should Be Just Tip Of Iceberg,” <http://earthtechling.com/2012/12/offshore-wind-energy-investments-should-be-just-tip-of-iceberg/>, JMP)

The Department of Energy (DOE) recently announced a major investment in offshore wind projects in the Northwest, Midwest, Gulf, and East Coast. The DOE will provide seven projects with an initial investment of $4 million, and may provide each project with $47 million over four years with the goal of deploying these projects for commercial operation by 2017.

These grants represent a major boost for the offshore wind industry and will help innovative, pioneering technologies become commercially viable. For example, one grant recipient, the Fisherman’s Atlantic City Windfarm, plans to install up to six direct-drive turbines in state waters off the coast of Atlantic City, New Jersey. The project will use an advanced bottom-mounted foundation design and innovative installation procedures to mitigate environmental impacts, and it will achieve commercial operation by 2015. All of the projects supported by these grants promote exciting new technologies – everything from floating wind turbines to foundations that use fewer materials.

While these DOE investments are a huge boost towards making innovative offshore wind technologies commercially operational in the next five years, they represent a small step towards the type of policy needed to help offshore wind energy reach its full potential. Offshore wind resources in the U.S. could provide 4,000 GW of clean, domestic energy. An offshore wind industry could support up to 200,000 jobs and spur over $70 billion in annual investments by 2030.Onshore wind has a similar potential for growth. Onshore wind already makes up more than 50 GW of our generating capacity and supports 75,000 jobs. Wind power is on track to meet 20% of our generating capacity by 2030.

To fully take advantage of our massive wind resources, stable, long-term federal policy is needed. The wind Production Tax Credit (PTC) and offshore wind Investment Tax Credit (ITC) are examples of such policies. These tax credits have helped the wind industry to grow, produce clean energy, and provide well-paying jobs for thousands of Americans. The credits are at risk of expiring, which would halt the wind industry’s growth and lead to the elimination of tens of thousands of jobs.

Congress can renew the PTC and ITC and put the wind industry on track to generate thousands of megawatts of clean energy. In fact, a bill doing just this has already passed the Senate Finance Committee, and is now stalled in the House.

The DOE’s offshore wind grants are a small step towards meeting our wind energy potential. Renewing the PTC and ITC would be a huge step. TAKE ACTION: Tell Congress to do just that.

### AT: Takes Too Long

#### It can be commercialized quickly

Matzat 13, Greg Matzat is the Senior Advisor for Offshore Wind Technologies at the U.S. Department of Energy in its Wind and Water Power Technologies Office and is the lead for the Department’s offshore wind demonstration projects. Greg has a degree Naval Architecture and Marine Engineering from Webb Institute and did graduate studies in Ocean Engineering at Stevens Institute of Technology. He is a licensed Professional Engineer. Before joining the Department of Energy, Greg was President and CEO of the naval architecture and engineering firm Sparkman & Stephens in New York where he worked for 20 years, Gearing Up for Offshore Wind Energy, http://www.dnv.com/resources/publications/dnv\_forum/2013/forum\_01\_2013/gearing\_up\_for\_offshore\_wind\_energy.asp

History shows that U.S. industry can gear up quickly. For instance, it took just nine years to install 54 GW of land-based wind in the U.S. with 13.1 GW of that installed in 2012 alone. As our offshore wind industry develops, we expect to see further improvements in production and installation, thereby reducing the total cost of offshore wind energy and driving further deployment.

## Economy

### XT: Solves the Grid

#### Offshore wind solves grid failure and high electricity costs

Maracci 12, Silvio Marcacci Silvio is Principal at Marcacci Communications, a full-service clean energy and climate-focused public relations company based in Washington, D.C., 300,000 Jobs and $200 Billion Economic Potential from U.S. Offshore Wind, http://cleantechnica.com/2012/09/14/300000-jobs-and-200-billion-economic-potential-from-u-s-offshore-wind/

Grid Reliability and Price Benefits

Beyond creating new jobs and economic activity building and operating all these new turbines, plugging offshore wind into our nation’s grid can increase reliability and lower utility prices. Offshore winds blow strongest during the day and in heat waves – precisely the points when demand for electricity is highest and the risk of power shortages most acute.

In addition, the greatest potential wind power lies along some of the East Coast’s biggest cities. Grid congestion has constrained the ability of cheaper power to reach these demand pools and created some of the highest power prices in the country. But if these population centers could tap into steady electricity being generated just offshore, growing demand could be met cheaply. In fact, New York State’s grid operator recently found consumers save $300 million in wholesale electricity costs for every 1GW of wind on the grid.

#### It’s vital to the grid – 4 reasons

Ohleth no date, Kris Ohleth is Executive Director at Mid-Atlantic Regional Council on the Ocean Chair at Windustry - Women of Wind Energy Past Director of Permitting at Atlantic Wind Connection Policy Manager - Renewable Energy and Marine Spatial Planning at Ocean Conservancy Director, Environmental Programs at Deepwater Wind Deputy Project Director at Bluewater Wind Marine Field Technician at NOAA Fisheries Communications Coordinator, Smith Fellows Program at The Nature Conservancy, Atlantic Wind Connection, http://www.gaccny.com/fileadmin/ahk\_gaccny/Consulting/Green\_Corner/Offshore\_Presentation\_Atlantic\_Wind\_Connection.pdf

\*\*\*AWC=Atlantic Wind Connection offshore wind project

Grid reliability is essential; especially to industrial, commercial and military customers. • Northeast blackout of 2003 estimated to cost about $7-$10 billion. • AWC technology provides controllability of power flows. – AWC can instantly direct power to grid connection points where it is most valuable or most needed to support reliability. – AWC can respond to grid stresses like the loss of a large generator or transmission line. – AWC can balance the variability of offshore wind with conventional generating resources. – AWC can help re-start the grid after a blackout.

### AT: Wind Hurts Grid

#### Wind supports the grid – best new study proves

Maracci 1/24, Silvio Marcacci Silvio is Principal at Marcacci Communications, a full-service clean energy and climate-focused public relations company based in Washington, D.C., Forget Intermittency: NREL Says Wind Energy Can Boost Grid Reliability, http://cleantechnica.com/2014/01/24/forget-intermittency-nrel-says-wind-energy-can-boost-grid-reliability/

We’ve all heard the warnings about how intermittent renewables could “crash” the grid if for instance all of a sudden the wind stops blowing and grid operators are left in the lurch for power when they need it. But what if wind turbines actually improve grid reliability?

May sound far-fetched to some people, but that’s exactly what the U.S. Department of Energy’s National Renewable Energy Laboratory (NREL) reports in the new study Active Power Controls from Wind Power: Bridging the Gaps.

Previous studies have focused on wind energy forecasting as the key to balancing wind’s availability and the power grid’s demand, but this new hypothesis could vastly expand the relationship between wind turbines and the grid.

NREL undertook the study with the Electric Power Research Institute, an organization comprised of more than 1,000 members (most of whom are electric utilities) and the University of Colorado, so renewable energy naysayers will be hard pressed to dismiss this study as an environmentalist pipe dream.

Analysts studied multiple power system simulations, control simulations, and field tests at NREL’s National Wind Technology Center to determine how if wind could provide ancillary services in wholesale electricity markets, how wind farms affect system frequency in the Western U.S. grid system, and if using wind farms to actively provide power control to the grid affects turbine performance and structural integrity.

And the outcome of all these studies? Wind energy can not only support the grid by ramping power output up and down to enhance system reliability, but that using wind farms to provide active power control is economically beneficial, all with negligible damage to the turbines themselves.

Wind Energy, Making The Grid Stronger and Cheaper

These are potentially game-changing findings. “The study’s key takeaway is that wind energy can act in an equal or superior manner to conventional generation when providing active power control, supporting the system frequency response, and improving reliability,” said Erik Ela, NREL analyst.

Active power control helps grid operators balance system demand with generation at various times throughout the day, helping prevent power flow above or below the ideal grid frequency and involuntary load shedding – preventing both potential blackouts and turbine damage.

Making America’s grid more flexible and integrating renewables is an important imperative. Without long-overdue transmission system investments, grid operators are often forced to use high-cost (and typically fossil fuel) “peaker” power plants when demand surges or baseload power plants go offline.

## Warming

**2ac O/W Nuclear War**

**It’s the only existential threat --- outweighs nuclear war**

**Deibel 2007** (Terry – international relations at the Naval War College, Foreign Affairs Strategy: Logic of American Statecraft, Conclusion: American Foreign Affairs Strategy Today, p. 387-390)

Finally, **there is one** major **existential threat** to American security (as well as prosperity) **of a nonviolent nature, which**, though far in the future, **demands urgent action. It is** the threat of **global warming** to the stability of the climate upon which all earthly life depends. **Scientists worldwide have been observing** the gathering of this threat for three decades now, **and what was once a mere possibility has passed through probability to near certainty. Indeed not one of more than 900 articles** on climate change published **in refereed scientific journals** from 1993 to 2003 **doubted that anthropogenic warming is occurring. “In legitimate scientific circles,” writes** Elizabeth **Kolbert, “it is virtually impossible to find evidence of disagreement over the fundamentals of global warming.”** Evidence from a vast international scientific monitoring effort accumulates almost weekly, as this sample of newspaper reports shows: an international panel predicts “brutal droughts, floods and violent storms across the planet over the next century”; climate change could “literally alter ocean currents, wipe away huge portions of Alpine Snowcaps and aid the spread of cholera and malaria”; “glaciers in the Antarctic and in Greenland are melting much faster than expected, and…worldwide, plants are blooming several days earlier than a decade ago”; “rising sea temperatures have been accompanied by a significant global increase in the most destructive hurricanes”; “NASA scientists have concluded from direct temperature measurements that 2005 was the hottest year on record, with 1998 a close second”; “Earth’s warming climate is estimated to contribute to more than 150,000 deaths and 5 million illnesses each year” as disease spreads; “widespread bleaching from Texas to Trinidad…killed broad swaths of corals” due to a 2-degree rise in sea temperatures. “The world is slowly disintegrating,” concluded Inuit hunter Noah Metuq, who lives 30 miles from the Arctic Circle. “They call it climate change…but we just call it breaking up.” **From the founding of the first cities** some 6,000 years ago **until the beginning of the industrial revolution, carbon dioxide levels** in the atmosphere **remained relatively constant** at about 280 parts per million (ppm). **At present they are accelerating toward 400 ppm**, and by 2050 they will reach 500 ppm, about double pre-industrial levels. Unfortunately, atmospheric CO2 lasts about a century, so there is no way immediately to reduce levels, only to slow their increase, **we are** thus **in for significant global warming; the only debate is how much and how serious the effects will be**. As the newspaper stories quoted above show, **we are already experiencing** the effects of 1-2 degree warming in more violent storms, **spread of disease, mass die offs** of plants and animals, **species extinction, and** threatened **inundation of low-lying countries** like the Pacific nation of Kiribati and the Netherlands at a warming of 5 degrees or less the Greenland and West Antarctic ice sheets could disintegrate, leading to a sea level of rise of 20 feet that would cover North Carolina’s outer banks, swamp the southern third of Florida, and inundate Manhattan up to the middle of Greenwich Village. Another catastrophic effect would be the collapse of the Atlantic thermohaline circulation that keeps the winter weather in Europe far warmer than its latitude would otherwise allow. Economist William Cline once estimated the damage to the United States alone from moderate levels of warming at 1-6 percent of GDP annually; severe warming could cost 13-26 percent of GDP. But **the most frightening scenario is runaway greenhouse warming, based on positive feedback from the buildup of water vapor** in the atmosphere that is both caused by and causes hotter surface temperatures. **Past ice age transitions**, associated with only 5-10 degree changes in average global temperatures, **took place in just decades**, even though no one was then pouring ever-increasing amounts of carbon into the atmosphere. **Faced with this specter, the best one can conclude is that “humankind’s continuing enhancement of the natural greenhouse effect is akin to playing Russian roulette with** the earth’s climate and **humanity’s life support system. At worst, says physics professor** Marty **Hoffert of New York University, “we’re just going to burn everything up**; we’re going to heat the atmosphere to the temperature it was in the Cretaceous when there were crocodiles at the poles, and then **everything will collapse.” During the Cold War**, astronomer Carl Sagan popularized a theory of nuclear winter to describe how a thermonuclear war between the Untied States and the Soviet Union would not only destroy both countries but possible end life on this planet. **Global warming is the post-Cold War era’s equivalent of nuclear winter** at least as serious and **considerably better supported scientifically. Over the long run it puts dangers from** terrorism and traditional **military challenges to shame. It is a threat** not only to the security and prosperity to the United States, but potentially **to the continued existence of life on this planet**.

**2ac 1% Risk**

**Even a one percent risk of warming means you vote aff**

**Strom 7** (Robert – professor emeritus of planetary science at the University of Arizona, Hot House: Global Climate Change and the Human Condition, p. 246)

Keep in mind that the current **consequences of global warming** discussed in previous chapters are the result of a global average temperature increase of only 0.5 'C above the 1951-1980 average, and these consequences **are beginning to accelerate**. Think about what is in store for us when the average global temperature is 1 °C higher than today. That is already in the pipeline, and there is nothing we can do to prevent it. We can only plan strategies for dealing with the expected consequences, and reduce our greenhouse gas emissions by about 60% as soon as possible to ensure that we don't experience even higher temperatures. **There is** also **the danger of eventually triggering an abrupt climate change that would accelerate global warming to a catastrophic level in a short period of time**. If that were to happen we would not stand a chance. **Even if that possibility had only a 1% chance of occurring, the consequences are so dire that it would be** insane not to act. Clearly we cannot afford to delay taking action by waiting for additional research to more clearly define what awaits us. **The time for action is now**.

**2ac XT: Solvency**

**Offshore wind solves warming**

**NWF no date**, National Wildlife Fund, Offshore Wind Power, http://www.nwf.org/What-We-Do/Energy-and-Climate/Renewable-Energy/Offshore-Wind.aspx

**Offshore wind energy has great potential to help America forge a clean, independent energy future.** There are currently nearly 2,000 offshore wind turbines spinning in Europe but not a single one can be found here in America, despite the immense potential for clean energy generation right off our shores.

National Wildlife Federation is working with a broad coalition of partners to build momentum and support for the rapid, environmentally-responsible development of our offshore wind energy resources. **If we are to protect wildlife from the dangers of climate change, we can no longer afford to ignore this massive local clean energy source.**

Offshore Wind Potential in the Atlantic Ocean

**The Atlantic** Ocean **is one of the best attainable renewable energy resources in the U**nited **S**tates with the potential to create local jobs while **reducing global warming pollution.**

**America has some of the best offshore wind resources in the world, particularly along the Atlantic coast where over 1,300 GW of energy generation potential has been identified. Harnessing just a fraction of our offshore wind resource—52 GW—could power about 14 million U.S. homes with local, pollution-free energy while creating over $200 billion in new economic activity along the coast. New analysis shows that a robust offshore wind industry could create 300,000 jobs here in America.**

By tapping the power of offshore wind, **America can help ensure energy security, price stability, and decreased pollution, while decreasing the use of fossil fuels that pose the biggest threat to our wildlife and ocean resources.**

### Future Research Note

#### This book seems worth buying if interested in pursuing an offshore wind aff

http://www.amazon.com/Offshore-Wind-Power-John-Twidell/dp/0906522633

#### Prefer our Twidell evidence – it’s the most authoritative source and represents consensus

Twidell and Gaudiosi 9, John Twidell and Gaetano Gaudiosi, Editors John Twidell works independently as an academic consultant and writer in renewable energy and sustainability, and as Director of the AMSET Centre Ltd. He previously held the Chair in Renewable Energy at De Montfort University and was Director of the Energy Studies Unit of Strathclyde University. He has also held appointments at Universities in Africa and the South Pacific. He has served on the Boards of the British Wind Energy Association and the UK Solar Energy Society, on committees of the Institute of Physics and as an adviser to the UK Parliamentary Select Committee on Energy. Practical experience in wind power has included management of a 3 MW (60 m) wind turbine and other smaller wind turbines on Orkney, northern Scotland. He is a Board member of Westmill Windfarm Co-operative. Presently, he is Editor Emeritus of the academic journal ‘Wind Engineering’, having been General Editor from 1998 to 2007. He is a visiting lecturer at the Environmental Change Institute, University of Oxford (MSc in Environmental Change, Energy Module), and the School of Aeronautics and Engineering, City University, London (MSc in Energy, Environment, Economics and Technology). His co-authored textbook with A.D. Weir, ‘Renewable Energy Resources’ (second edition 2006, published by Taylor Francis) sells worldwide, mainly on postgraduate courses. He has written ~ 100 published papers on renewable and sustainable energy, and chapters in 9 other books. Gaetano Gaudiosi graduated in Naval Engineering at Naples University in 1959, and now works independently as a consultant on offshore and onshore wind energy and other marine renewable energies. From its foundation in 2006, he has been president of the not-for-profit association OWEMES, emphasising the Mediterranean and Southern European seas. He is a Board member of ATENA (Associazione di Tecnica Navale) Rome Section and ANIV (Association Nazionale Ingegneria del Vento, 2001-2007). Previously he was an officer in the wind energy programs of ENEA (Project Manager 1980-1987 for MEDIT 300 KW and GAMMA 1.5 MW wind turbine; senior consultant and E.C. Italian project leader 1990-2001), Italian Member in the IEA Wind R& D Implement Agreement 1984-1990) and European Commission Expert for the evaluation of wind and ocean energy project proposals. From 1961 to 1980, he worked in nuclear energy, with experience in testing thermal critical phenomena in the reactor core (BWR and PWR) in Italy, USA and Sweden. From 1984, he has chaired the triennial European Seminar OWEMES in Italy (Rome 1994; La Maddalena 1997; Siracusa 2000; Napoli 2003; Civitavecchia 2006). He is author of papers on nuclear energy and wind energy, with particular attention to the offshore wind power applications presented in international conferences since 1992. He co-edited a special issue of the journal ‘Wind Engineering’, reviewing offshore wind energy. Teaching activity in Wind Energy has been carried out for many years in Italy and other countries, recently including the e-learning ENEA-UNESCO course on offshore wind energy, Offshore Wind Power

This is the most authoritative single volume on offshore wind power yet published. Distinguished experts, mainly from Europe’s leading universities, have contributed a collection of peer reviewed papers on the interfaces between wind power technology and marine engineering. The range of issues covered by the book include: wind as a resource; wind power generation; connection to the grid; the marine environment and engineering issues particular to it.

This book is essential for academic departments of mechanical engineering/energy engineering/ renewable energy. Offshore wind power generation will be the driver of the offshore industry for the foreseeable future: all organisations involved in offshore engineering should have this book.

## Offcase

### 2ac National Policy Key

#### National policy key to propel offshore wind --- will speed up licensing

Jackson, 13 (Derrick, 3/2/2013, “Politics imperil offshore wind sweet spots,” [http://bostonglobe.com/opinion/2013/03/02/sour-politics-imperil-offshore-wind-sweet-spots/wZHvvjxVMtZKx2Y42iRpII/story.html, JMP)](http://bostonglobe.com/opinion/2013/03/02/sour-politics-imperil-offshore-wind-sweet-spots/wZHvvjxVMtZKx2Y42iRpII/story.html,%20JMP))

Kyle Aarons, a fellow at the Center for Climate and Energy Solutions, said that despite Obama’s high-profile advocacy of renewable energy in his State of the Union address, only 30 states have adopted renewable energy standards, and most states without them are Republican strongholds that soundly voted against Obama for president.

“No two state policies are alike, and we’re not really anticipating much progress on new states,” Aarons said. “I wouldn’t say we’re stuck on renewables overall. We have a lot of potential to still catch up. Onshore wind will still probably do well, but without a national policy, I would imagine that offshore, being newer, will be pretty slow.”

Rick Sullivan, Massachusetts secretary for energy and environmental affairs, agreed, saying in a telephone interview that a national policy would likely speed up offshore wind development. “I think you’d not only see more permits, but faster permitting should allow developers to take advantage of the most up-to-date wind technology out there rather than it taking years to put up something that may be outdated,” Sullivan said.

Being outdated weighed heavily on the minds of participants at the offshore conference. While Cape Wind and Block Island’s Deepwater Wind are finally poised to plunge their first platforms into the water, Europe had a record year in offshore wind development, installing 369 turbines. Denmark announced it now gets 30 percent of energy from wind.

Investors at the conference said billions of dollars are sitting on the sidelines as America’s wind potential waits for a national policy. Deepwater Wind board manager Bryan Martin gave credit to Salazar for getting wind energy as far as he has, “but we’re tapped out on the state-by-state model.” The White House and Congress must tap into a national model, or the United States will remain on the sidelines for good.

### 2ac CPs That Don’t Change Regulatory Structure

#### Overbearing local control is the primary barrier blocking the development of offshore wind --- plan key to solve

Schroeder, 10 --- J.D., University of California, Berkeley, School of Law (October 2010, Erica, California Law Review, “Turning Offshore Wind On,” Vol. 98, No, 5, Lexis, JMP)

II Offshore Wind: Balancing Benefits and Costs

The benefits of offshore wind power are significant, frequently outweighing its costs, which tend to be site specific. With careful planning and siting, wind power developers can substantially reduce and nearly eliminate the costs associated with wind power generation. In the United States, however, localities and local interests exert substantial control over offshore wind siting and permitting, and regional and national interests have ineffective recourse for dealing with strong local power, as described in more detail in Part III. Because of this dominant local control and the localized costs of offshore wind power development, the cost-benefit balance tends to tip against the global benefits of offshore projects. As a result, there are currently no offshore wind projects under construction in the United States, despite several proposals. n57

A. Benefits of Offshore Wind

Many of the most compelling benefits of offshore wind are similar to those of onshore wind, though offshore wind has its own unique set of benefits. To start, wind power generation can help meet the growing energy demand in the United States. The U.S. Energy Information Administration predicts that the demand for electricity in the United States will grow to 5.8 billion MWh in 2030, a 39 percent increase from 2005. n58 The more that wind power can help to meet this demand, the more diversified the United States' energy portfolio will be, and the less susceptible the nation will be to dependency on foreign fuel sources and to price fluctuations in traditional fuels. n59 In addition, wind power [\*1639] benefits the United States by creating a substantial number of jobs for building and operating the domestic wind energy facilities. n60 In an April 2009 speech at the Trinity Structural Towers Manufacturing Plant in Iowa, President Obama predicted that if the United States "fully pursues our potential for wind energy on land and offshore," wind power could create 250,000 jobs by 2030. n61

Once a wind project is built, it involves only minimal environmental impacts compared to traditional electricity generation. Wind power emits negligible amounts of traditional air pollutants, such as sulfur dioxide and particulate matter, as well as carbon dioxide and other greenhouse gases. n62 Lower emissions of traditional air pollutants means fewer air quality-related illnesses locally and regionally. n63 Lower greenhouse gas emissions will help to combat climate change, effects of which will be felt locally and around the world. n64 According to the International Panel on Climate Change (IPCC), the effects of climate change will include melting snow, ice, and permafrost; significant effects on terrestrial, marine, and freshwater plant and animal species; forced changes to agricultural and forestry management; and adverse human health impacts, including increased heat-related mortality and infectious diseases. n65 The U.S. Energy Information Administration estimates that the United States emits 6 billion metric tons of greenhouse gases annually, and it expects emissions to increase to 7.9 billion metric tons by 2030, with 40 percent of emissions coming from the electric power sector. n66 Thus, if the United States can get more of its electricity from wind power, it will contribute less to climate change, and help to mitigate its negative impacts. Furthermore, wind power does not involve any of the additional environmental costs associated with nuclear power or fuel extraction for traditional electricity generation, such as coal mining and natural gas extraction. n67 Wind power generation also does not require the water necessary to cool traditional coal, gas, and nuclear generation units. n68

Moreover, offshore wind power has certain attributes that give it added benefits compared to onshore wind. Wind tends to be stronger and more [\*1640] consistent offshore - both benefits when it comes to wind power generation. n69 This is largely due to reduced wind shear and roughness on the open ocean. n70 Wind shear and roughness refer to effects of the landscape surrounding turbines on the quality of wind and thus the amount of electricity produced. n71 While long grass, trees, and buildings will slow wind down significantly, water is generally very smooth and has much less of an effect on wind speeds. n72 In addition, because offshore wind projects face fewer barriers - both natural and manmade - to their expansion, offshore developers can take advantage of economies of scale and build larger wind farms that generate more electricity. n73

Importantly, offshore wind also could overcome the problems that onshore wind faces regarding the distance between wind power generation and electricity demand. That is, although the United States has considerable onshore wind resources in certain areas, mostly in the middle of the country, they are frequently distant from areas with high electricity demand, mostly on the coasts, resulting in transmission problems. n74 By contrast, offshore resources are near coastal electricity demand centers. n75 In fact, twenty-eight of the contiguous forty-eight states have coastal boundaries, and these same states use 78 percent of the United States' electricity. n76 Thus, offshore wind power generation can effectively serve major U.S. demand centers and avoid many of the transmission costs faced by remote onshore generation. n77 If shallow water offshore potential (less than about 100 feet in depth) is met on the nation's coasts, twenty-six of the twenty-eight coastal states would have sufficient wind resources to meet at least 20 percent of their electricity needs, and many states would have enough to meet their total electricity demand. n78

B. Costs of Offshore Wind

Whereas many of the benefits of offshore wind power are national or even global, the costs are almost entirely local. The downsides to offshore wind that drive most of the opposition to offshore wind power are visual and [\*1641] environmental. Opponents to offshore wind projects complain about their negative aesthetic impacts on the landscape and on local property values. n79 They also make related complaints about negative impacts on coastal recreational activities and tourism. n80 However, studies have failed to show statistically significant negative aesthetic or property-value impacts, despite showing continued expectations of such impacts. n81

In addition, opponents frequently cite offshore wind power's environmental costs. These costs are site specific and can involve harm to plants and animals, and their habitats. n82 This harm includes impacts on birds, which can involve disruption of migratory patterns, destruction of habitat, and bird deaths from collision with the turbine blades. n83 However, these adverse impacts are generally less dramatic than those associated with fossil fuel extraction and generation, and in a well-chosen site they can be negligible. n84 A recent, exhaustive study of the environmental impact of major offshore wind farms in Denmark concluded that "offshore wind farms, if placed right, can be engineered and operated without significant damage to the marine environment and vulnerable species." n85

A final concern is that offshore wind farms are more expensive to build, and more difficult to install and maintain, than onshore wind farms. n86 The cost of an offshore wind project is estimated to be at least 50 percent greater than the onshore equivalent. n87 Short-and long-term technical improvements could help to lower offshore wind costs, however, and government assistance may help them occur more quickly. n88

[\*1642]

C. Balancing Costs and Benefits: The Future of Offshore Wind

Despite the aforementioned challenges, offshore wind remains important to the United States' energy future. Its many benefits make it an ideal choice to meet some of the country's growing electricity demand, especially as the United States begins to realize the severity of the threats from both climate change and its dependence on foreign fuels. n89 In addition to the environmental and economic benefits that offshore and onshore wind power provides, the proximity of offshore wind to U.S. electricity demand and the resulting lower transmission costs are crucial. n90 The many benefits of offshore wind outweigh its primarily local environmental and aesthetic costs, most of which can be minimized with careful planning and community relations.

In spite of these compelling drivers, a primary obstacle to offshore wind power development is the lack of a regulatory framework with which to reconcile the local costs with the regional and national benefits. n91 The current regulatory framework is described in the next Part. Until the federal government puts a revised framework in place, such as the revised CZMA proposed in Part V, states and local groups fixated on immediate, local costs will retain the ability to stall and even block offshore wind power development. Without federal regulatory revision, offshore wind will not realize its full promise.

### 2ac End NEPA / Environmental Review CP --- Doesn’t Solve

#### Environmental review is a critical in leasing process --- prevents conflicting use and ensures site certainty necessary for development

Trabish, 11 (7/8/2011, Herman K. Trabish, “Is the U.S. Offshore Wind Industry About to Boom?” <http://www.greentechmedia.com/articles/read/is-the-u.s.-offshore-wind-industry-about-to-boom>, JMP)

Because offshore wind remains a priority for the federal government, Jim Lanard, President of the Offshore Wind Development Coalition, testified in June before a House of Representatives subcommittee on controversial Republican initiatives to streamline permitting.

“The first modern offshore wind farm became operational in 1991 off the coast of Denmark,” Lanard told the subcommittee of the House Natural Resources Committee. Europe now has over 40 operational offshore wind farms with an installed capacity of 2,396 megawatts. Sixteen more projects, representing an additional 3,972 megawatts, are under construction there. China, he added, has only 102 megawatts of offshore wind now in operation but some 2,300 megawatts are in some stage of construction.

“Yet in the United States, no offshore wind farms have been built,” Lanard said. That, however, is about to change, he added, thanks in no small part to Obama Administration initiatives. “We applaud President Obama, U.S. DOI Secretary Ken Salazar, U.S. DOE Secretary Steven Chu, and their staffs for their leadership on the continuing development of the offshore wind industry,” Lanard told the subcommittee.

In a private conversation following his testimony, Lanard further praised the work of Interior Department Deputy Secretary David Hayes on behalf of offshore wind. He “has formed a secretariat-level task force that goes across all executive branch departments in the national government and they meet as needed to ensure that at the highest levels in the Obama Administration there is communication and coordination both across departments and within the departments, in every possible agency,” Lanard said. “Just for offshore wind.”

Precisely according to the timeline in Interior’s Smart from the Start initiative, announced earlier this year by DOI Secretary Ken Salazar, federal Wind Energy Areas (WEAs) have been identified for development.

“In 2010, eight offshore wind developers bid to lease land on the outer continental shelf [OCS] off the coast of Maryland,” Lanard said. Also in 2011, “Ten offshore wind developers bid in the leasing process for federal waters off Massachusetts and eleven put in bids for the OCS off New Jersey,” Lanard added.

“Next, according to Smart from the Start, there will be an environmental assessment of the WEAs,” Lanard said. The first assessment -- of New Jersey, Maryland, Virginia and Delaware -- is due in the first part of July. “It will show the pathway for how a developer can get what might be called a ‘conditional lease’ for a wind farm, provided it meets the standards in the environmental assessment.”

An environmental assessment determines if a full Environmental Impact Statement (EIS) is needed. If it concludes that an EIS is not necessary, the assessment is deemed a Finding of No Significant Impact (FONSI). The areas sought for offshore wind development lease evaluations are expected to return FONSIs.

“The most important thing about this heavily conditioned permission to evaluate a lease site,” Lanard said, “is that once you have it, it prevents conflicting use from occurring there.” This protects developers who spend millions of dollars in site assessment from those who might “show up when the work is done and say ‘Me too.’”

“We need site certainty and this is what the Department of the Interior initiative has done so well,” Lanard said.

In addition, Smart from the Start, which Lanard called “very elegant,” postpones the time- and cost-consuming full EIS until actual construction is pending. Developers believe these early federal assessments will reduce the permitting procedure by as much as two years, decreasing it from a seven- to nine-year process to a five- to seven-year period, without compromising environmental protections.

It is the success of these Obama Administration policy initiatives that has caused some Congress watchers to question the motives of the Republican-led House subcommittee initiatives on OCS offshore wind permitting matters. In the hearing at which Lanard testified, seven of the eight presenters reportedly told the subcommittee it is not permitting but Republican-led withholding of incentives such as tax credits, loan guarantees and R&D funding that is the obstacle.

Some insiders believe the House subcommittee is laying groundwork for streamlining the OCS oil and gas drilling permit process by “greening” the concept ahead of time. Doubts were reinforced when the Republican sponsor of one of the initiatives failed to appear at the hearing where it was to be considered after questions about its value were raised.

Nevertheless, it looks very much like the U.S. offshore wind industry is about to achieve the scale it needs to boom. “Economies of scale can be achieved for offshore wind,” Lanard said, because they are ready to make a technological leap.

“Several offshore wind developers,” Lanard said, “have reported that they plan to propose wind farms scaled at 1,100 megawatts each.” And, Lanard said, “The standard going forward will be five-, six- and seven-megawatt turbines.”

#### Environmental review process has been expedited to avoid long delays but still ensure protections

Yarling, 12 --- law school student who had an internship with North Florida Land Trust and is currently interning at the Florida Department of Environmental Protection (3/8/2012, Kiboni Ann, “Increasing Offshore Wind Projects: A Focus on Regulatory Authority,” <http://www.natlawreview.com/article/increasing-offshore-wind-projects-focus-regulatory-authority>, JMP)

IV. Progressive Policy Initiatives Need to Progress

With the reorganization and restructuring of the controlling agencies, the environmental review process need not be met with similar obstacles apparent throughout history. The United States Department of Energy (DOE) recognizes a potential for wind energy to contribute 20% of United States electricity by 2030, if significant obstacles are overcome.[lxxiii] These obstacles include: 1) improving turbine technology, 2) changing transmission systems to deliver the energy to the grid system, 3) expanding markets to purchase and use it, 4) policy development and 4) environmental regulation. [lxxiv] Concentrated, domestic wind energy has enormous potential to supply electricity, but its maximum effectiveness has only occurred in localized areas such as Nantucket Sound because of wind patterns and jurisdictional battles. Recent advanced technological enhancements have improved performance and the industry is gaining some momentum but the governmental agencies need to make substantial changes.

Recognizing the difficult nature of the environmental review process, BOEMRE introduced the “Smart from the Start” wind energy initiative, to identify suitable areas for wind energy projects on the OCS.[lxxv] The two primary purposes of the initiative are to 1) provide decision makers with the most current data, by calling for public and expert inputs, and 2) to streamline the issuance of leases and approval of site assessment activities, in accordance with the DOI and CEQ regulations implementing the provisions of NEPA.[lxxvi] Another purpose of the initiative is to identify areas that are most suitable for offshore wind energy projects.[lxxvii] The initiative “focuses on the identification and refinement of areas on the OCS that are most suitable for renewable energy development,” and “utilizes coordinated environmental studies, large-scale planning processes, and expedited review processes within these areas to achieve an efficient and responsible renewable energy leasing process.”[lxxviii]

If the initiative is successful, it should reduce the time, expense, and energy required to complete the environmental review requirements while still promoting environmentally safe activities. Initiatives such as this should be pursued in order to provide developers with efficiency and success, while providing the nation with a more diverse energy scheme and loosening the nation’s dependency on fossil fuel resources. This goal is countered by the Energy Policy Act of 2005. The Act is dedicated to supporting oil and gas production by providing incentives to developers, but the Act neglects to give wind energy equal support.[lxxix] There are other provisions, though not as supportive as those for the fossil fuels, dedicated to geothermal and hydroelectric energy.[lxxx] However there should be specific details under the act, or a similar act, supporting wind energy production, which is the largest contributor of electricity among the renewable energies. Wind energy should be given the same initiatives, if not more, than fossil fuels.

#### NEPA is the basis for environmental review for offshore wind projects

Schroeder, 10 --- J.D., University of California, Berkeley, School of Law (October 2010, Erica, California Law Review, “Turning Offshore Wind On,” Vol. 98, No, 5, Lexis, JMP)

B. Federal Involvement in the Cape Wind Project

The federal government has been substantially involved in the Cape Wind project because all of Cape Wind's turbines are over five miles from the Massachusetts coast n161 and thus fall under the purview of federal rather than state jurisdiction. n162 As noted previously, before the Cape Wind project, it was not clear which federal agency was in charge of siting and permitting offshore wind farms. When Cape Wind began its permitting process in 2001, the Army Corps of Engineers (Army Corps) took on the task of regulating offshore wind under the Rivers and Harbors Act and the Outer Continental Shelf Lands Act. n163

Even after the Army Corps overcame a legal challenge to its authority in Ten Taxpayers Citizen Group v. Cape Wind Associates, n164 it remained unclear who should have the ultimate authority in regulating offshore wind. n165 In Ten Taxpayers, a group of citizens challenged an Army Corps permit granted to Cape Wind for a temporary tower in Nantucket Sound, a preliminary data-gathering step for the project to determine its feasibility. n166 The case centered [\*1651] on a debate over state versus federal jurisdiction in federal waters. n167 Ten Taxpayers claimed that Cape Wind needed a state fisheries permit, despite the project's location in federal waters. n168 The district court dismissed the complaint and held that the state did not have jurisdiction over nonfishing activities, even if those activities might affect fish. n169 The First Circuit upheld the district court's ruling, but on somewhat different grounds. n170 Among other things, the First Circuit held that the federal government has jurisdiction over the Outer Continental Shelf under Outer Continental Shelf Lands Act, leaving Massachusetts without the ability to require permits there. n171 The Supreme Court denied certiorari. n172

As Ten Taxpayers progressed through the courts, both Congress and the Army Corps continued to move forward in response to, or in spite of, the federal permitting controversy. To facilitate offshore development, Congress began drafting legislation that would officially dictate where the offshore siting and permitting power should lie. n173 Meanwhile, the Army Corps continued its environmental review process under the National Environmental Policy Act (NEPA). n174 The Army Corps issued a Draft EIS in November 2004 and accepted comments through the following January. n175

### --- XT: Expedited Environmental Review Procedures Now

#### Department of Interior has simplified the environmental review process to shorten approval time --- environmental groups and developers are both satisfied

Taylor, 12 (8/10/2012, Phil, E&E reporter, “OFFSHORE WIND: With advance of tax credit and OCS leases, optimism builds in nascent U.S. industry,” <http://www.eenews.net/public/Greenwire/2012/08/10/1>, JMP)

**\*\*\*Jim Lanard is president of the Washington, D.C.-based Offshore Wind Development Coalition**

Interior streamlining

Lanard said Interior also deserves praise for establishing an efficient template for approving lease sales in the Atlantic Ocean. The agency finalized its first handful of wind energy leasing areas using environmental assessments rather than environmental impact statements -- which could have added years to the process.

"That is a huge success," Lanard said. "BOEM is to be credited for making sure it didn't set a precedent. ... Environmental groups are comfortable, developers are comfortable."

Indeed, environmental groups have rallied around offshore wind, even though some have opposed land-based projects amid concerns over their impacts to wildlife.

"There are steps the administration has taken to streamline the [offshore wind] process to make it quicker and not lose the integrity of the environmental review, and we support those efforts," said Courtney Abrams, federal clean energy advocate for Environment America. "Conservation groups and advocates across the board are standing together in support of offshore wind -- sometimes that's not the perception in media around local project development."

#### Administration is expediting offshore wind now --- several reviews have already been completed

Koch, 12 (Wendy, 12/12/2012, “How much potential does offshore wind hold? The U.S. government says it could quadruple the nation's electricity generation, and it's offering new funds to help get the first projects off the ground,” <http://www.usatoday.com/story/news/nation/2012/12/12/obama-offshore-wind-projects/1765029/>, JMP)

The Obama administration, which aims to get 80% of the nation's electricity from clean energy sources by 2035, has taken several steps to develop technologies and expedite leasing for offshore wind projects.

In February, Interior Secretary Ken Salazar said federal environmental reviews for designated "wind energy areas" off Delaware, Maryland, New Jersey and Virginia were complete, clearing the way for their developers to seek leases.

Under the Department of Energy's new funding, which builds on $42 million in R&D awards given last year, each project will receive up to $4 million to complete engineering, site evaluation and planning. The department will then select up to three of the projects, offering each up to $47 million, to abet their commercial operation by 2017.

#### Environmental review procedures have been expedited

Elkan, 12 (Alexander, 12/21/2012, “Steps Toward Wind Energy Development Off North Carolina Coast,” <http://www.jdsupra.com/legalnews/steps-toward-wind-energy-development-off-87056/>, JMP)

The possibility of wind energy development on the Outer Continental Shelf (OCS) off North Carolina’s shores moved one step closer to fruition last week, as the Department of the Interior Bureau of Ocean Energy Management (BOEM) released its Call for Information and Notice of Intent regarding leasing and site assessments.

BOEM identified three offshore areas for potential wind energy development projects, including two off the coast of Wilmington and one near Kitty Hawk.

The publication of the Call and the Notice of Intent are further steps in the first of four key phases in the wind energy planning, leasing, and development process on the OCS:

Planning and siting;

Lease issuance;

Approval of a site assessment plan (SAP); and

Approval of a construction and operations plan (COP).

Through its Call for Information, the BOEM is requesting: (a) statements of interest from companies wanting to acquire commercial wind leases in some or all of the designated areas on the Outer Continental Shelf; and (b) public comments regarding site conditions, resources, and other uses of these areas. These steps are precursors to lease negotiation and/or bidding.

The purpose of the Notice of Intent is to clear the path for BOEM to conduct an Environmental Assessment pursuant to the Department of the Interior's (DOI) ``Smart from the Start'' wind energy initiative, which provides for expedited review procedures under applicable DOI and National Environmental Policy Act (NEPA) regulations.

January 28, 2013 is the deadline for submissions of interest in potential leasing and submissions of concerns regarding potential impacts.

While there are currently no wind turbines in the water anywhere off the U.S. coast, BOEM has already moved forward with leases for wind projects off the coast of Massachusetts (October 2010) and Delaware (October 2012). With their recent steps, BOEM has indicated that North Carolina leases may soon follow.

### 2ac End NEPA / Environmental Review CP --- Links to Politics

#### Counterplan requires Obama to exert political power to create categorical exclusion

Giddings, 11 --- J.D. Candidate 2011, The George Washington University Law School (Winter 2011, Nathaniel C., JOURNAL OF ENERGY & ENVIRONMENTAL LAW, “Go Offshore Young Man! The Categorical Exclusion Solution to Offshore Wind Farm Development on the Outer Continental Shelf,” <http://groups.law.gwu.edu/JEEL/ArticlePDF/2-1-Giddings.pdf>, JMP)

Conclusion

In his speech on the Deepwater Horizon oil spill, President Barack Obama declared that increased production of alternative energy sources was necessary to prevent future environmental disasters of this nature.155 Instead of waiting for Congress to act, which seems unlikely to occur in the foreseeable future, the President can encourage federal agencies to create incentives for the development of clean energy resources right now.156 In particular, the President could encourage BOEMRE to create a categorical exclusion for development of offshore wind farms on the Outer Continental Shelf—a decision that would likely withstand judicial review.

The current approval process, requiring two environmental reviews, is redundant and unnecessary. Not only do offshore wind farms have a proven track record of being environmentally sound, measures in current federal law already ensure environmental protection. In particular, the consultation provisions of environmental statutes such as the ESA require oversight where threatened or endangered species are potentially impacted. Moreover, the CER process would ensure that where there are extraordinary circumstances, an EA would be completed to ensure that environmental impacts are properly assessed. Requiring two environmental reviews with these protective measures already in place is

unnecessary and needlessly slows down the development of offshore wind farms on the Outer Continental Shelf.

A categorical exclusion for offshore wind farms would allow the United States to tap a resource that could provide large amounts of power to high-demand centers, create jobs, and protect the environment. Moreover, if the concerns associated with global climate change are in fact a reality, the need to reduce our reliance on greenhouse gas emitting sources of energy is of pressing importance. Offshore wind promises to deliver clean energy to the areas that need it most while having minimal environmental impacts. The only question that remains is whether the Obama administration has the political willpower to turn words into action.

#### And, reducing environmental laws is unpopular

O’Keefe, 12 --- CEO, George C. Marshall Institute (8/14/2012, William, “The Sweet Spot: Bipartisan Energy Policy,” <http://energy.nationaljournal.com/2012/08/finding-the-sweet-spot-biparti.php?comments=expandall#comments>, JMP)

We have seen that subsidies and industrial policy initiatives have unintended consequences that are far greater than any realistic benefits. Instead of continuing those, Congress should support a multi-year R&D program that does not promote one energy source over another but produces the scientific information that the private sector needs to advance commercial technologies. It also could make the R&D tax credit permanent.

Overhauling environmental laws and regulations is a worthy goal but not one that attract a bi-partisan majority, at least not soon. What Congress could do is start a hearing process to determine which provisions of law have worked, which haven’t, and what overarching principles provide the basis to streamline and modernize environmental laws. The Code of Federal Regulations continues to grow. New regulations are added, rarely are old ones removed. There needs to be a law requiring a “look back” process leading to eliminating or revising past regulations.

### --- XT: Links to Politics

#### Congress doesn’t support categorical exclusions

Giddings, 11 --- J.D. Candidate 2011, The George Washington University Law School (Winter 2011, Nathaniel C., JOURNAL OF ENERGY & ENVIRONMENTAL LAW, “Go Offshore Young Man! The Categorical Exclusion Solution to Offshore Wind Farm Development on the Outer Continental Shelf,” <http://groups.law.gwu.edu/JEEL/ArticlePDF/2-1-Giddings.pdf>, JMP)

Part V: Possible Alternatives

Some may argue that this proposal goes too far, that it eviscerates the purpose of NEPA or that more research is needed before acting in such a broad manner. However, failure to expedite the offshore wind farm siting process will lead to both an increased risk of harm from global climate change and the United States falling further behind the rest of the world in offshore wind energy development and utilization. Three possible alternatives to this Note’s categorical exclusion proposal are (1) the creation of a categorical exclusion by Congress for offshore wind farms, (2) the use of EAs until the environmental impacts of offshore wind farms are better understood, and (3) the creation of a partial categorical exclusion for the Site Assessment Plan (“SAP”) portion of the lease process. This Section discusses each of these alternatives and reveals why each fundamentally fails to expedite the process in an appreciable manner. None of these alternatives would ameliorate one of the most significant hurdles facing offshore wind: the time-intensive process required to bring an offshore wind farm into operation.

A. Congressional Action

Although a congressionally enacted categorical exclusion could be immune to judicial review,146 this alternative has several significant drawbacks. First, Congress has historically avoided creating categorical exclusions for entire classes of non-administrative activities; it is much more likely to do so for specific projects.147 Second, none of the recently stalled climate bills propose a categorical exclusion for offshore wind energy development.148 Third, the political climate in Washington makes it such that any congressional action on this issue is unlikely.149 Consequently, this Note’s proposal is more likely to occur and, therefore, is superior to a congressionally enacted categorical exclusion.

#### Failure to make energy policies responsive to environmental needs will spur a political backlash

Percival, 97 --- Director, Environmental Law Program, University of Maryland School of Law (Robert V., The University of Chicago Legal Forum, “ARTICLE: Regulatory Evolution and the Future of Environmental Policy,” 1997 U Chi Legal F 159, Lexis, JMP)

E. More Effort Should be Devoted to Overcoming the Political Barriers to Improved Regulatory Policy

Those who make a serious effort to "rethink regulation" ultimately will recognize that far more fundamental environmental progress could be accomplished by changing the nation's energy, agricultural, and transportation policies to make them more responsive to environmental concerns. The nation's tax system levies the vast majority of taxes on labor and capital rather than on waste and pollution. n215 However, fundamental reforms in tax [\*197] or energy policy are quickly dismissed as politically unrealistic. Much more effort should be devoted to considering why such policies are so unattractive politically and what, if anything, can be done to change the political dynamics.

The enactment of consensus food safety and safe drinking water legislation in 1996 demonstrates continuing bipartisan support for environmental protection. It also demonstrates that legislative gridlock can be overcome when measures are perceived to provide some benefits to both industry and environmental interests that traditionally have been antagonistic. The enactment of further environmental legislation may require the use of consensus-building processes that foster compromises necessary to overcome legislative gridlock.

### --- AT: Agency Action Doesn’t Link

#### Fighting for the plan FORCES a trades off with other agenda priorities

Bernstein, 11 --- political scientist who writes about American politics (Jonathan, 8/20/2011, “The power that a president does -- and doesn't -- have A president has less power than Obama's liberal critics think -- but they also have more power than they realize,” <http://www.salon.com/news/politics/war_room/2011/08/20/bernstein_presidential_power/index.html>, JMP)

Moreover, the positions of the president and most everyone else are, to look at it one way, sort of opposites. The president has potential influence over an astonishing number of things -- not only every single policy of the U.S. government, but policy by state and local governments, foreign governments, and actions of private citizens and groups. Most other political actors have influence over a very narrow range of stuff.

What that means is that while the president's overall influence is certainly far greater than that of a House subcommittee chair or a midlevel civil servant in some agency, his influence over any specific policy may well not be greater than that of such a no-name nobody. A lot of good presidential skills have to do with figuring out how to leverage that overall influence into victories in specific battles, and if we look at presidential history, there are lots of records of successes and failures. In other words, it's hard. It involves difficult choices -- not (primarily) policy choices, but choices in which policies to fight for and which not to, and when and where and how to use the various bargaining chips that are available.

### --- AT: Link Isn’t Uniqe

#### Environmental groups are ensuring that faster reviews don’t compromise necessary protections

Nunez, 12 --- with National Geographic (12/20/2012, Christina, “As U.S. Eyes Offshore Wind Development, Whales Get New Protections,” <http://theenergycollective.com/cnunez/162456/us-eyes-offshore-wind-development-whales-get-new-protections>)

One of the concerns for offshore wind development along the East Coast involves the endangered North Atlantic right whale, which routinely migrates up and down the Atlantic off the U.S. coast. Last week, three wind developers announced an agreement with environmental groups designed to mitigate impact on the right whale’s migration, feeding and breeding grounds. The provisions of the voluntary plan include restrictions on development activity, noise levels and ship speeds during certain times of the year, along with increased monitoring for whale presence as companies assess potential turbine sites. (See related story: “Chilean Wind Farm Faces Turbulence Over Whales“)

As the Natural Resources Defense Council notes, the agreement can help reduce delays for the U.S. offshore wind industry, which has a timeline of 7-9 years for approval of a project. “[As] we continue on this faster track, we also need ensure that these projects avoid potential conflict with endangered species that could slow down their forward progress,” writes Kit Kennedy of the NRDC.

#### Pilot projects don’t link

Kim & Rothenberg, 11 --- \*Korea Development Institute, AND \*\*Dept of Poli Sci at the University of Rochester (4/27/2011, Jaehoon Kim and Lawrence S. Rothenberg, “Lobbying, Information, and Delegation,” <https://editorialexpress.com/cgi-bin/conference/download.cgi?db_name=FEMES11&paper_id=840>, JMP)

Given the likelihood that the conditions for full or nearly full information revelation are rarely met, it is unsurprising that empirical scholars generally do not view lobbyists in legislatures such as the U.S. Congress as the unique solution to legislators' \insatiable desire for information about the policy and political consequences of their actions" (Smith, Roberts, and Vander Wielen 2006, p. 351; for a highly optimistic view, see Esterling 2004). Rather, lobbyists are seen as valuable but limited sources of information, often lacking necessary knowledge and not always reliable (e.g., Wright 1996). Legislators will rarely feel fully confident about the relationship between policy and outcome. As is often the case, they may prefer pilot programs and incremental change as a means of gaining additional insight into how policy choices actually function rather than depend on lobbies' pronouncements.

### 2ac CP Just Financial Incentives

#### Financial incentives aren’t enough to jumpstart the industry

McDonnell, 13 (Tim, 2/28/2013, “Why the US still doesn't have a single offshore wind turbine; Here's a look at the top four reasons why offshore wind remains elusive in the US,” [http://www.guardian.co.uk/environment/2013/feb/28/windpower-renewableenergy, JMP)](http://www.guardian.co.uk/environment/2013/feb/28/windpower-renewableenergy,%20JMP))

Despite massive growth of the offshore wind industry in Europe, a blossoming array of land-based wind turbines stateside, and plenty of wind to spare, the US has yet to sink even one turbine in the ocean. Not exactly the kind of leadership on renewables President Obama called for in his recent State of the Union address.

Light is just beginning to flicker at the end of the tunnel: On Tuesday, outgoing Interior Secretary Ken Salazar told a gathering of offshore industry leaders he was optimistic the long-embattled Cape Wind project would break ground before year's end. And in early January industry advocates managed to convince Congress to extend a critical tax incentive for another year.

But America's small yet dedicated entrepreneurial corps of offshore developers are still chasing "wet steel," as they call it, while their European and Asian colleagues forge ahead on making offshore wind a basic component of their energy plans. So what's the holdup? Here's a look at the top reasons that offshore wind remains elusive in the US:

1. Begging bucks from Uncle Sam: The industry breathed a sigh of relief this year when Congress re-upped the Production Tax Credit, which recoups wind developers 2.2 cents for every kilowatt-hour of power they produce, and the Incentive Tax Credit, which pays back 30 percent of a wind project's construction costs. It might sound like chump change, but the PTC alone amounts to $1 billion a year, and industry advocates insist that wind would hit the doldrums without these subsidies. Still, they hardly put wind on a level playing field with the lavishly subsidized (and lushly lobbied) fossil fuel industry.

That's especially a problem for offshore wind, says Thierry Aelens, an executive with German developer RWE. Higher construction and transmission costs make electricity from offshore over twice the price of onshore in the US, he says, a tough pill for state regulators and utility operators to swallow, especially given the low cost of natural gas made possible by fracking. Today renewables startups rely heavily on private investment to get off the ground, but the industry needs better financial backing from the feds to help it compete with fossil fuels, Aelens says. "Germany is a fully subsidized system. Which technology get supported is fully in the hands of the government."

### 2ac Politics

#### Congress will support the plan

Schroeder, 10 --- J.D., University of California, Berkeley, School of Law (October 2010, Erica, California Law Review, “Turning Offshore Wind On,” Vol. 98, No, 5, Lexis, JMP)

This revision could come in tandem with revisions to the Energy Policy Act or as part of an entirely new energy agenda. President Barack Obama has [\*1663] repeatedly expressed interest in a new trajectory for energy policy in the United States that focuses on climate change, energy efficiency, renewable energy, and energy independence. n269 Congress could take advantage of this momentum to make these related revisions to the CZMA as well. In fact, reform of an existing, familiar set of regulations, like the CZMA, may be more palatable to Congress, and an easy first step to take with regard to renewable energy.

#### Political opposition’s over – the plan’s a massive win

Conathan 13, Michael Conathan is the Director of Ocean Policy at the Center for American Progress, Making the Economic Case for Offshore Wind, http://americanprogress.org/issues/green/report/2013/02/28/54988/making-the-economic-case-for-offshore-wind/

The current state of offshore wind in the United States

The U.S. offshore wind industry is emerging from the political doldrums that derailed its early days, and finding champions such as Sen. Carper in the process. Sen. Collins has championed funding for a deepwater offshore wind development project in her home state of Maine, and has taken over as lead co-sponsor of Sen. Carper’s bill following the retirement of her former colleague, Sen. Olympia Snowe (R-ME). Governors such as Maryland’s Martin O’Malley (D) have prioritized offshore wind development as well. They view it as a political victory on multiple fronts: creating jobs in construction, operation, and maintenance; contributing to a diverse energy portfolio; and moving them closer to renewable energy targets and away from polluting fossil fuels.

#### It’s bipartisan

Conathan 13, Michael Conathan is the Director of Ocean Policy at the Center for American Progress, Making the Economic Case for Offshore Wind, http://americanprogress.org/issues/green/report/2013/02/28/54988/making-the-economic-case-for-offshore-wind/

Conclusion

If there is one thing that Republicans and Democrats can agree on when it comes to America’s energy future, it is that we should be doing everything we can to generate as much of our power from domestic sources as possible. The Brattle Group’s analysis shows that development of a large-scale offshore wind energy industry in the United States is not only economically viable but is also a key means of diversifying and developing our domestic energy portfolio. Given the uncertainty inherent in predicting future market conditions and commodity prices, this study provides ample evidence that the Obama administration is acting prudently and proactively by prioritizing offshore wind development through programs such as “Smart from the Start.”

### AT: Plan Hurts Oil & Natural Gas Development

#### The plan won’t impact regulation and development of oil and gas --- explicitly refers to offshore renewable energy

Schroeder, 10 --- J.D., University of California, Berkeley, School of Law (October 2010, Erica, California Law Review, “Turning Offshore Wind On,” Vol. 98, No, 5, Lexis, JMP)

D. Implications for Other Types of Offshore Development and the Potential for Mutual Benefits

Despite offshore wind power's lack of success, offshore production of conventional fuels has been very successful in the United States. In the two decades preceding 2003, almost 25 percent of the nation's natural gas production and almost 30 percent of its oil production came from offshore. n281 Conventional offshore production is environmentally risky, however, and requires extensive environmental permitting from a variety of agencies. n282 Indeed, offshore drilling has been subject to substantial, ongoing controversy, related especially to the environmental damage it causes. n283 Similarly, importing liquefied natural gas via ship and pipeline through coastal states into the United States has raised environmental as well as safety concerns. n284 Nonetheless, this industry is also expected to increase as the nation's demand for natural gas increases and its supplies diminish. n285

The proposed revision to the CZMA should not impact the regulation and development of these conventional resources as it refers explicitly to offshore renewable energy development. The existing oil and gas industry, however, will likely have a role in the development of offshore wind energy. n286 These industries and related industries, for example, the submarine cable industry and the offshore maintenance industry, have experience in siting, building, operating, and maintaining offshore structures. n287 Indeed, Congress recognized this in granting MMS, the agency that has traditionally overseen offshore oil and gas development, permitting authority over offshore renewable energy facilities, including offshore wind facilities. n288 Offshore wind power development may be able to learn and profit from this existing knowledge base, and the possibility exists for combined offshore oil or gas and renewable projects. n289

# Offshore Wind Neg

### 1nc Climate / Environment Adv

#### Wind power actually increases C02 emissions

Lea, 12 --- director and economic adviser at the Arbuthnot Banking Group (January 2012, Ruth, “Electricity Costs: The folly of wind power,” <http://www.civitas.org.uk/economy/electricitycosts2012.pdf>, JMP)

Wind-power is not effective in cutting CO 2 emissions

At first glance it could be assumed that wind-power could play a major part in cutting CO 2 emissions. Once the turbines are manufactured (an energy-intensive business in itself) and installed then emissions associated with the electricity could be expected to be zero - as indeed for nuclear power.

But, as pointed out in chapter 2, wind-power is unreliable and intermittent and requires conventional back-up plant to provide electricity when the wind is either blowing at very low speeds (or not at all) or with uncontrolled variability (intermittency). Clearly the CO 2 emissions associated with using back-up capacity must be regarded as an intrinsic aspect of deploying wind turbines. This is all the more relevant given the relatively high CO2 emissions from conventional plants when they are used in a back-up capacity.

As energy consultant David White has written:5

 “... (fossil -fuelled) capacity is placed under particular strains when working in this supporting role because it is being used to balance a reasonably predictable but fluctuating demand with a variable and largely unpredictable output from wind turbines. Consequently, operating fossil capacity in this mode generates more CO2 per kWh generated than if operating normally.”

 “... it seems reasonable to ask why wind-power is the beneficiary of such extensive support if it not only fails to achieve the CO2 reductions required, but also causes cost increases in back-up, maintenance and transmission, while at the same time discouraging investment in clean, firm generation.” 6 In a comprehensive quantitative analysis of CO2 emissions and wind-power, Dutch physicist C. le Pair has recently shown that deploying wind turbines on “normal windy days” in the Netherlands actually increased fuel (gas) consumption, rather than saving it, when compared to electricity generation with modern high-efficiency gas turbines. 7,8 Ironically and paradoxically the use of wind farms therefore actually increased CO2 emissions, compared with using efficient gas-fired combined cycle gas turbines (CCGTs) at full power.

Conclusions

Britain has committed itself to draconian cuts in CO2 emissions. On the basis of the costings discussed in chapter 2, nuclear power and gas-fired CCGT were the preferred technologies for generating reliable and affordable electricity. On the basis of the evidence presented above, these two technologies are also the preferred technologies for reducing CO2 emissions.

Wind-power fails the test on both counts. It is expensive and yet it is not effective in cutting CO2 emissions. If it were not for the renewables targets set by the Renewables Directive, wind-power would not even be entertained as a cost-effective way of generating electricity or cutting emissions. The renewables targets should be renegotiated with the EU.

#### Germany proves that coal plants have to be constructed to try and ensure grid stability

Rich, 13 --- author is chairman of Americans for Limited Government (Howard, 3/14/2013, “Germany's Green Energy Disaster: A Cautionary Tale For World Leaders,” [http://www.forbes.com/sites/realspin/2013/03/14/germanys-green-energy-disaster-a-cautionary-tale-for-world-leaders/, JMP)](http://www.forbes.com/sites/realspin/2013/03/14/germanys-green-energy-disaster-a-cautionary-tale-for-world-leaders/,%20JMP))

Merkel’s energy plan called for the addition of 25,000 megawatts of sea-based wind turbine power by 2030. However through the first six months of 2012 only 45 megawatts had been added to Germany’s existing 200-megawatt supply, according to an industry analyst quoted by Reuters. And despite massive subsidies funded by a household energy surcharge (which currently comprises 14 percent of German power bills), major wind projects in the North Sea are being delayed or canceled due to skittish investors.

The basic problem? Wind farms are notoriously unreliable as a power source. Not only that, they take up vast amounts of space and kill tens of thousands of birds annually.

“Generating energy with wind involves extreme fluctuations because it depends on the weather and includes periods without any recognizable capacity for days, or suddenly occurring supply peaks that push the grid to its limits,” a 2012 report from Germany energy expert Dr. Guenter Keil notes. “There is a threat of power outages over large areas, mainly in wintertime when the demand is high and less (power) gets delivered from abroad.”

A typical 20-turbine wind farm occupies an area of 250 acres. So in order for Merkel to achieve her objective, she would have to cover an area six times the size of New York City with turbines. Not surprisingly the erection of all those turbines – along with the infrastructure needed to route their inconsistent power supply back to the German heartland – would be astronomical.

“The costs of our energy reform and restructuring of energy provision could amount to around one trillion euros by the end of the 2030s,” Germany’s environmental minister announced last month.

That sum could rise even higher, as last month a Harvard University study revealed the extent to which the power generating potential of wind farms has been “overestimated.”

“The generating capacity of very large wind power installations may peak at between 0.5 and 1 watts per square meter,” the study concluded. “Previous estimates, which ignored the turbines’ slowing effect on the wind, had put that figure at between 2 and 7 watts per square meter.”

Such are the shifting sands upon which Merkel has staked her country’s energy future.

Because renewable power sources have been so unreliable, Germany has been forced to construct numerous new coal plants in an effort to replace the nuclear energy it has taken offline. In fact the country will build more coal-fired facilities this year than at any time in the past two decades – bringing an estimated 5,300 megawatts of new capacity online. Most of these facilities will burn lignite, too, which is strip-mined and emits nearly 30 percent more carbon dioxide than hard coal.

In other words Germany is dirtying the planet in the name of clean energy – and sticking its citizens with an ever-escalating tab so it can subsidize an energy source which will never generate sufficient power.

This is the cautionary tale of command energy economics – one other nations would be wise to heed.

#### Spinning reserve capacity required by greater wind penetration hurts the environment

Korchinski, 12 --- chemical engineer who has spent his career working worldwide in the oil refining and chemical industries (October 2012, William, “The Limits of Wind Power,” <http://reason.org/files/thelimitsofwindpower.pdf>, JMP)

F. The Environmental Impact of Spinning Reserve Requirements

This additional spinning reserve capacity, necessitated by the installation of intermittent power sources such as wind generators, comes with its own environmental impacts and costs. If the reserve capacity takes the form of additional natural gas generation, then there are increased CO2 emissions. If the reserves take the form of water storage (where this is geologically feasible), then there are typically environmental consequences related to reduction of wilderness, in addition to the possible costs of relocating communities. If the reserve capacity uses batteries, there are environmental impacts related to the production, use and disposal of those batteries, including the disposal of toxic chemicals and heavy metals.

Note that although wind power by itself generates very little CO 2 —especially at today’s low penetrations—the spinning reserves required to ensure system reliability at higher wind penetra-tions partially offset wind’s low CO2 emissions profile. As wind penetration increases from 0% of total system load to 20%, the additional spinning reserves require that gas turbines be added to the system, thereby increasing total system load by approximately 2%. This means that the additional gas turbines are now adding an additional 2% CO2 emissions to the system, even as the additional wind power is reducing CO2 emissions.

#### No impact – empirics

Willis et. al, ’10 [Kathy J. Willis, Keith D. Bennett, Shonil A. Bhagwat & H. John B. Birks (2010): 4 °C and beyond: what did this mean for biodiversity in the past?, Systematics and Biodiversity, 8:1, 3-9, <http://www.tandfonline.com/doi/pdf/10.1080/14772000903495833>, ]

The most recent climate models and fossil evidence for the early Eocene Climatic Optimum (53–51 million years ago) indicate that during this time interval atmospheric CO2 would have exceeded 1200 ppmv and tropical temperatures were between 5–10 ◦ C warmer than modern values (Zachos et al., 2008). There is also evidence for relatively rapid intervals of extreme global warmth and massive carbon addition when global temperatures increased by 5 ◦ C in less than 10 000 years (Zachos et al., 2001). So what was the response of biota to these ‘climate extremes’ and do we see the large-scale extinctions (especially in the Neotropics) predicted by some of the most recent models associated with future climate changes (Huntingford et al., 2008)? In fact the fossil record for the early Eocene Climatic Optimum demonstrates the very opposite. All the evidence from low-latitude records indicates that, at least in the plant fossil record, this was one of the most biodiverse intervals of time in the Neotropics (Jaramillo et al., 2006). It was also a time when the tropical forest biome was the most extensive in Earth’s history, extending to mid-latitudes in both the northern and southern hemispheres – and there was also no ice at the Poles and Antarctica was covered by needle-leaved forest (Morley, 2007). There were certainly novel ecosystems, and an increase in community turnover with a mixture of tropical and temperate species in mid latitudes and plants persisting in areas that are currently polar deserts. [It should be noted; however, that at the earlier Palaeocene–Eocene Thermal Maximum (PETM) at 55.8 million years ago in the US Gulf Coast, there was a rapid vegetation response to climate change. There was major compositional turnover, palynological richness decreased, and regional extinctions occurred (Harrington & Jaramillo, 2007). Reasons for these changes are unclear, but they may have resulted from continental drying, negative feedbacks on vegetation to changing CO2 (assuming that CO2 changed during the PETM), rapid cooling immediately after the PETM, or subtle changes in plant–animal interactions (Harrington & Jaramillo, 2007).]

#### Growing emissions in developing countries make CO2 reduction impossible – modeling is irrelevant

Koetzle, 08 – Ph.D. and Senior Vice President of Public Policy at the Institute for Energy Research (William, “IER Rebuttal to Boucher White Paper”, 4/13/2008, http://www.instituteforenergyresearch.org/2008/04/13/ier-rebuttal-to-boucher-white-paper/)

For example, if the United States were to unilaterally reduced emissions by 30% or 40% below 2004 levels[8] by 2030; net global CO2 emissions would still increase by more than 40%. The reason is straightforward: either of these reduction levels is offset by the increases in CO2 emissions in developing countries. For example, a 30% cut below 2004 levels by 2030 by the United States offsets less than 60% of China’s increase in emissions during the same period. In fact, even if the United States were to eliminate all CO2 emissions by 2030, without any corresponding actions by other countries, world-wide emissions would still increase by 30%. If the United States were joined by the other OECD countries in a CO2 reduction effort, net emissions would still significantly increase. In the event of an OCED-wide reduction of 30%, global emissions increase by 33%; a reduction of 40% still leads to a net increase of just under 30%. Simply put, in order to hold CO2 emissions at 2004 levels, absent any reductions by developing nations like China and India, all OECD emissions would have to cease.[9] The lack of participation by all significant sources of GHGs not only means it is unlikely that net reductions will occur; it also means that the cost of meaningful reductions is increased dramatically. Nordhous (2007) for example, argues that for the “importance of near-universal participation to reduce greenhouse gases.”[10] His analysis shows that GHG emission reduction plans that include, for example, 50% of world-wide emissions impose additional costs of 250 percent. Thus, he find’s GHG abatement plans like Kyoto (which does not include significant emitters like the United States, China, and India) to be “seriously flawed” and “likely to be ineffective.” [11] Even if the United States had participated, he argues that Kyoto would make “but a small contribution to slowing global warming, and it would continue to be highly inefficient.”[12]The data on emissions and economic analysis of reduction programs make it clear that GHG emissions are a global issue. Actions by localities, sectors, states, regions or even nations are unlikely to effectively reduce net global emissions unless these reductions are to a large extent mirrored by all significant emitting nations.

### --- XT: Won’t Reduce Co2 Emissions

#### Massive scale up requires back up generation that thwarts emission reductions

IER, 11 (11/14/2011, Institute for Energy Research, “Rebutting Ms. Bode’s Wind Comments,” <http://www.instituteforenergyresearch.org/2011/11/14/rebutting-bodes-20-percent-by-2030/>, JMP)

In last Sunday’s New York Times Dialogue on Incentives on Energy, Denise Bode, Chief Executive of the American Wind Energy Association, argued that

“Including incentives, which all forms of energy get, wind is now close to cost-competitive with all other energy sources”, and

“Over all wind power supports 75,000 jobs across the United States today, and —with a stable tax policy—it promises to support 500,000 American jobs less than 20 years from now.”

Sadly, these statements are more wishful thinking from the wind industry.

The Feasibility of 20 Percent Wind by 2030

Ms. Bode’s latter statement is presumably based on a Department of Energy study that evaluated a scenario where wind is assumed to supply 20 percent of generation by 2030. The question, of course, is whether that target is likely to be met. According to the Energy Information Administration (EIA) (also part of the Department of Energy) and the International Energy Agency (IEA), a 20 percent wind scenario in 2030 is highly unlikely unless directly mandated by government fiat. Even policies such as a Clean Energy Standard or a Renewable Energy Standard do not reach a 20 percent share for wind generation, according to the EIA.

In EIA’s Annual Energy Outlook 2011, wind’s generation in 2030 is projected to be 159 billion kilowatt hours, about 70 percent higher than wind generation in 2010, but still a mere 3.2 percent share of generation. In EIA’s recent analysis evaluating an 80 percent clean energy standard by 2050, wind generation nearly doubles from the agency’s prediction in the Annual Energy Outlook by 2035. But an almost doubling in wind generation only provides a 6.3 percent share. EIA’s analysis of a 25 percent renewable energy standard also does not make the wind target in the DOE report cited by Ms. Bode. In that case, wind receives only a 4.9 percent share in 2030.

The question, of course, is if wind is almost cost competitive with all other energy sources and if there are policies that demand clean energy or renewable generation at levels of 25 percent or higher, why doesn’t wind generation penetrate further? The reason is that wind is an intermittent technology that is literally at the mercy of the wind. If the wind doesn’t blow, there is no generation from wind power, and thus a back-up technology needs to be ready to be brought on line at a moment’s notice. For this reason, Britain is contemplating adding a capacity value surcharge to wind that would pay for the back-up power from fossil fuels when it is needed.

So in the case of a clean energy standard, the big winners are natural gas (even though the standard penalizes it for its emissions), nuclear, and biomass generation, all of which can be used as base load power that provides generation on a continuous basis. In the case of the renewable energy standard, the principle winner, according to EIA analyses, is biomass gasification because it is a base-load generation technology and can be relied on when needed.

Further, Ms. Bode does not mention that once the better wind resources are used up, the cost of wind power increases because the sites are more difficult to build on; they are further away from existing transmission lines, requiring additional transmission lines to reach the major electricity markets; or the wind doesn’t blow as much and thus a lower level of generation is obtained from the same capacity as the wind generators on the better sites. These issues make wind less cost competitive among other technologies. (See the wind resource chart below.)

And, a scenario requiring 20 percent wind generation by 2030, if it were feasible, would require more than 300 gigawatts of wind capacity (or about 13,000 megawatts of new wind capacity each year) and that capacity would require huge land requirements. The Roscoe Wind Complex in Texas, one of the world’s largest wind projects, has a capacity of 781.5 megawatts and covers about 154 square miles—about 0.2 square miles per installed megawatt of wind capacity. Using this example, 300,000 megawatts of capacity would require about 60,000 square miles of land for wind turbines, larger than the land mass of Florida.

This growth in wind turbine capacity would require siting wind units on publicly owned lands where a large percentage of the development sites are located, continued taxpayer-funded subsidies, the building of power lines to remote areas where wind turbines are located, and the public acceptance of noise and other wind-related effects. And, that wind capacity would need to be backed-up with reliable fossil fuel capacity, adding additional cost and reducing the carbon dioxide benefits of introducing this level of wind energy.

The DOE analysis is also predicated on the assumption of very high capacity factors for wind of more than 40 percent. The experience of wind in Texas, the state with the most wind power capacity, finds that the output of the wind turbines can range from zero to 49 percent of installed capacity. However, at peak load (from 4 pm to 6 pm in July and August), the average output of the wind turbines in the Electric Reliability Council of Texas (ERCOT) was 16.8 percent of capacity. Wind energy does not provide much capacity value when most needed because winds are best in the late evening and early morning hours when demand is lower. Based on a stochastic analysis of the effective load carrying capability of wind in ERCOT, the reliability council uses 8.7 percent of installed wind capacity in its reserve margin calculation.

#### Need for continued backup capacity prevents significant CO2 reductions and increases costs of producing wind power

Korchinski, 12 --- chemical engineer who has spent his career working worldwide in the oil refining and chemical industries (October 2012, William, “The Limits of Wind Power,” <http://reason.org/files/thelimitsofwindpower.pdf>, JMP)

Existing estimates of the life-cycle emissions from wind turbines range from 5 to 100 grams of CO2 equivalent per kilowatt hour of electricity produced. This very wide range is explained by differ-ences in what was included in each analysis, and the proportion of electricity generated by wind. The low CO 2 emissions estimates are only possible at low levels of installed wind capacity, and even then they typically ignore the large proportion of associated emissions that come from the need for backup power sources (“spinning reserves”).

Wind blows at speeds that vary considerably, leading to wide variations in power output at different times and in different locations. To address this variability, power supply companies must install backup capacity, which kicks in when demand exceeds supply from the wind turbines; failure to do so will adversely affect grid reliability. The need for this backup capacity significantly increases the cost of producing power from wind. Since backup power in most cases comes from fossil fuel generators, this effectively limits the carbon-reducing potential of new wind capacity.

### ---XT: No Extinction

**Framing issue – their evidence is speculative on the effect of warming – prefer historical analysis in determining warming –**

**Willis, et. al, ‘10** [Kathy J. Willis, Keith D. Bennett, Shonil A. Bhagwat & H. John B. Birks (2010): 4 °C and beyond: what did this mean for biodiversity in the past?, Systematics and Biodiversity, 8:1, 3-9, <http://www.tandfonline.com/doi/pdf/10.1080/14772000903495833>, ]

So **why is there this discrepancy between what the fossil and historical records** are **tell**ing **us about extinctions driven by climate change and those predicted through models**? **Many biota,** using evidence from fossil plant records, **likely have much wider ecological tolerances than are usually assigned in models**. Also, **the present-day distribution of species, especially in mid to high latitudes, often has a strong historical/pre-historical cultural imprint** (e.g. Bradshaw & Lindbladh, 2005) **which again is often not taken into account in the models**. However, **the discrepancy is also in part due to the coarse scale of the models used to estimate climate change-induced habitat loss**. For example, **a recent study to assess whether climate change-induced habitat losses predicted at the European scale** (16 km × 16 km grid cells) **are also predicted from local-scale data and modelling** (25 m × 25 m grid cells) in two regions of the Swiss Alps **indicated that whereas the European-scale model predict loss of all suitable habitats, local-scale models predict persistence of suitable habitats in up to 100% of species** (Randin et al., 2009). **A similar conclusion was also reached in a study to assess the predictive accuracy of bioclimatic envelope models for the future distribution of European butterﬂies** (Luoto & Heikkinen, 2008). Here, **of the 100 species studied, a model that included topography predicted only half of the species losses for the period 2051–2080 compared with those predicted by a climate-only model**. In contrast, the number of species predicted to disappear from ﬂatlands doubled. **It would appear from both these studies that habitat heterogeneity resulting from topographic diversity may be an essential factor for persistence of biota in a future changing climate** (Willis & Bhagwat, 2009). Based on these studies, and many others using fossil and historical records, we argue that **evidence for the widely cited view that future climate change poses an equal or greater threat to global biodiversity than anthropogenic land-use change and habitat loss** (Thomas et al., 2004) **is** **equivocal:** extinctions driven by the latter processes of habitat loss pose a far greater threat to global biodiversity. It is also questionable, however, whether it is even possible to now separate the two processes, given that over 80% of the Earth’s terrestrial biomes now have evidence of an anthropogenic impact upon them (Ellis & Ramankutty, 2008). What we probably need to be considering is the synergistic effect of these two factors on biodiversity (Travis, 2003)

**Ecosystems will adapt – no impact**

**Center for the Study of Carbon Dioxide and Global Change** - Archived 8 March **’11**, Surviving the Unprecedented Climate Change of the IPCC, http://www.nipccreport.org/articles/2011/mar/8mar2011a5.html

(Citing: Willis, K.J., Bennett, K.D., Bhagwat, S.A. and Birks, H.J.B. 2010. 4°C and beyond: what did this mean for biodiversity in the past? Systematics and Biodiversity 8: 3-9.)

In a paper published in Systematics and Biodiversity, Willis et al. (2010) consider the IPCC (2007) "predicted climatic changes for the next century" -- i.e., their contentions that "global temperatures will increase by 2-4°C and possibly beyond, sea levels will rise (~1 m ± 0.5 m), and atmospheric CO2 will increase by up to 1000 ppm" -- noting that it is "widely suggested that the magnitude and rate of these changes will result in many plants and animals going extinct," citing studies that suggest that "within the next century, over 35% of some biota will have gone extinct (Thomas et al., 2004; Solomon et al., 2007) and there will be extensive die-back of the tropical rainforest due to climate change (e.g. Huntingford et al., 2008)." On the other hand, they indicate that some **biologists and climatologists have pointed out that "many of the predicted increases in climate have happened before, in terms of both magnitude and rate of change** (e.g. Royer, 2008; Zachos et al., 2008), **and yet biotic communities have remained remarkably resilient** (Mayle and Power, 2008) **and in some cases thrived** (Svenning and Condit, 2008)." But they report that those who mention these things are often "placed in the 'climate-change denier' category," although the purpose for pointing out these facts is simply to present "a sound scientific basis for understanding biotic responses to the magnitudes and rates of climate change predicted for the future through using the vast data resource that we can exploit in fossil records." Going on to do just that, **Willis et al. focus on "intervals in time in the fossil record when atmospheric CO2 concentrations increased up to 1200 ppm, temperatures in mid- to high-latitudes increased by greater than 4°C within 60 years, and sea levels rose by up to 3 m higher than present**," describing studies of past biotic responses that indicate "the scale and impact of the magnitude and rate of such climate changes on biodiversity." And **what emerges from those studies**, as they describe it, "**is evidence for rapid community turnover, migrations, development of novel ecosystems and thresholds from one stable ecosystem state to another**." And, most importantly in this regard, they report "**there is very little evidence for broad-scale extinctions due to a warming world."** In concluding, **the Norwegian, Swedish and UK researchers say that "based on such evidence we urge some caution in assuming broad-scale extinctions of species will occur due solely to climate changes of the magnitude and rate predicted for the next century**," reiterating that "**the fossil record indicates remarkable biotic resilience to wide amplitude fluctuations in climate."**

**Their studies prove the existence of warming, not the impact – doomsday predictions are empirically denied and ignore scientists**

John **Stossel**, Award-winning ABC News correspondent, **2007**

The Global Warming Myth?, http://abcnews.go.com/2020/Story?id=3061015&page=1

Dr. John **Christy**, **professor of Atmospheric Science at** the **U**niversity of **Alabama** at Huntsville **said**: "I remember as a college student at the first Earth Day being told it was a certainty that by the year 2000, the world would be starving and out of energy. Such **doomsday prophecies grabbed headlines, but have** **proven to be completely false."** "Similar **pronouncements today about catastrophes due to human-induced climate change,"** he continued, **"sound all too familiar and** **all too exaggerated** to me **as someone who actually produces and analyzes climate information."** The media, of course, like the **exaggerated claims**. Most **are based on computer models that purport to predict future climates. But computer models are** **lousy at predicting climate** **because water vapor and cloud effects cause changes that computers fail to predict**. In the mid-1970s, computer models told us we should prepare for global cooling. **Scientists tell reporters that computer models should "be viewed with great skepticism."** Well, why aren't they? The fundamentalist **doom mongers** also **ignore scientists who say the effects of global warming may be benign. Harvard astrophysicist** Sallie **Baliunas said** **added CO2** in the atmosphere **may actually benefit the world** **because more CO2 helps plants grow**. Warmer winters would give farmers a longer harvest season, and might end the droughts in the Sahara Desert. **Why don't we hear about this part of the global warming argument? "It's the money!"** said Dr. Baliunas. **"Twenty-five billion dollars in government funding has been spent since 1990 to research global warming. If scientists and researchers were coming out releasing reports that global warming has little to do with man, and most to do with just how the planet works, there wouldn't be as much money to study it."**

### 1nc Economy / Manufacturing Adv

#### Wind not key to overall U.S. manufacturing --- parts will just be imported

IER, 11 (11/14/2011, Institute for Energy Research, “Rebutting Ms. Bode’s Wind Comments,” <http://www.instituteforenergyresearch.org/2011/11/14/rebutting-bodes-20-percent-by-2030/>)

Current Wind Industry Jobs

According to the Congressional Research Service (CRS), the number of wind manufacturing jobs has remained relatively flat over the past 3 years at an estimated 20,000 jobs. (See chart below.) The majority of the 75,000 jobs (60 percent) that Ms. Bode quotes are in finance and consulting services, contracting and engineering services, and transportation and logistics. Only 3,500 jobs were in construction and 4,000 in operations and maintenance in 2010.

Wind turbine manufacturing is responsible for a very small share (less than 1 percent) of the total manufacturing jobs (11.5 million) in the United States in 2010. According to the DOE report that evaluated the 20 percent wind energy in 2030, turbine assembly and component plants would supply about 32,000 manufacturing jobs in 2026. But the American Wind Energy Association’s assessment is that the number would be 3 to 4 times that amount under a long-term stable policy environment. As CRS notes, the real number will be dependent not only on the demand for wind, but also on corporate decisions of where to produce the needed components. Those decisions could very well result in manufacturing jobs outside of the United States. As CRS notes, imports of wind generating equipment increased from $482.5 million in 2005 to $2.5 billion in 2008, held at $2.3 billion in 2009 and decreased to $1.2 billion in 2010 due to lower relative demand for new wind energy, declining prices, and new manufacturing plants in the United States. While European suppliers were the leaders in wind equipment imports to the United States, South Korea and China are now becoming players in the U.S. market.

#### Siphons off jobs from other more productive parts of the economy

Green, 9 --- Resident Scholar at the AEI (2/23/2009, “"Green" Illusions,” <http://www.aei.org/article/energy-and-the-environment/green-illusions/)>

Let's review the reasons why governments cannot create jobs, and why labelling them "green" doesn't change the basic dynamics.

Let's start with the fallacy that governments can create jobs. This fallacy was exploded all the way back in 1845 by a French politician and political economist named Frédéric Bastiat. Bastiat pointed out that the only way governments can create jobs is by first obliterating other jobs.

Sometimes, they obliterate other jobs by diverting taxpayer money away from the economic uses the taxpayer would have pursued if they had kept their taxes.

Other times, they obliterate jobs by imposing regulations that kill off one industry in favour of another. In still other situations, they impose mandates, such as using recycled paper to create an artificial market for recycled paper which reduce jobs in fresh-paper production.

In the green energy case, they are doing all of the above: Taxpayer dollars are being used to subsidize the renewable energy sector; damaging regulations are being implemented on the traditional fossil fuel sector, and mandates for the use of renewable energy are being issued, creating a false market in wind power at the expense of fossil fuel and nuclear power. Governments also invariably siphon off a good part of the money for "administration," creating civil service jobs that pay comparatively higher wages than the private sector for similar activity.

Inevitably, government efforts to create jobs cost the economy jobs and, adding insult to injury, divert limited resources to inefficient uses, causing economic underperformance.

#### Will destroy the economy with greater costs and electricity prices --- Germany proves

O’Keefe, 12 --- CEO, George C. Marshall Institute (12/22/2012, William, “The Wind Tax Credit: Green Welfare,” <http://energy.nationaljournal.com/2012/12/should-congress-support-wind-t.php?comments=expandall#comments>, JMP)

Many European countries, especially Germany, have traveled the clean energy road and by doing so have put their economies into a ditch. An analysis of Germany’s rush to renewables by the European Institute for Climate and Energy warned of “impending doom for the German economy caused by the lemming like charge to the Green mirage of affordable renewable energy.” The report went on, “The problem is that these energy sources are weather-dependent and thus their sporadic supply is starting to wreak havoc on Germany’s power grid and is even now threatening to destabilize power grids all across Europe! … after tens of billions of euros spent on renewable energy systems and higher prices for consumers, not a single coal or gas-fired power plant has been taken offline. To the contrary, old inefficient German plants have been brought back into service in an effort to stabilize the grid.”

With an economy that increasingly is reliant on electric power generation, we need to focus on abundant, reliable, and affordable sources of electric power generation. For the foreseeable future, that source is natural gas.

There is a clear lesson from 40 years of energy industrial policy initiatives, including the wind tax credit. It is simply not possible to create technological short cuts by throwing money at alternative energy systems.

#### Decline doesn’t cause war

Drezner 14, Daniel W. Drezner is a professor of international politics at the Fletcher School of Law and Diplomacy at Tufts University, Global Economic Governance during the Great Recession, http://muse.jhu.edu/journals/world\_politics/v066/66.1.drezner.html

The final significant outcome addresses a dog that hasn’t barked: the effect of the Great Recession on cross-border conflict and violence. During the initial stages of the crisis, multiple analysts asserted that the financial crisis would lead states to increase their use of force as a tool for staying in power.42 They voiced genuine concern that the global economic downturn would lead to an increase in conflict—whether through greater internal repression, diversionary wars, arms races, or a ratcheting up of great power conflict. Violence in the Middle East, border disputes in the South China Sea, and even the disruptions of the Occupy movement fueled impressions of a surge in global public disorder.

The aggregate data suggest otherwise, however. The Institute for Economics and Peace has concluded that “the average level of peacefulness in 2012 is approximately the same as it was in 2007.”43 Interstate violence in particular has declined since the start of the financial crisis, as have military expenditures in most sampled countries. Other studies confirm that the Great Recession has not triggered any increase in violent conflict, as Lotta Themnér and Peter Wallensteen conclude: “[T]he pattern is one of relative stability when we consider the trend for the past five years.”44 The secular decline in violence that started with the end of the Cold War has not been reversed. Rogers Brubaker observes that “the crisis has not to date generated the surge in protectionist nationalism or ethnic exclusion that might have been expected.”45 [End Page 134]

#### The global economy is resilient

Drezner 14, Daniel W. Drezner is a professor of international politics at the Fletcher School of Law and Diplomacy at Tufts University, Global Economic Governance during the Great Recession, http://muse.jhu.edu/journals/world\_politics/v066/66.1.drezner.html

THE 2008 financial crisis posed the biggest challenge to the global economy since the Great Depression. During the first ten months of the “Great Recession,” global stock market capitalization plummeted lower as a percentage of its pre crisis level than during the first ten months of the 1930s depression.1 Housing prices in the United States declined more than twice as much as they did during the Great Depression.2 Banks and other financial institutions lost more than $4 trillion in the value of their holdings as a result of the crisis.3 The global decline in asset values in 2008 was conservatively estimated to be $27 trillion, or roughly 50 percent of global economic output.4 Five years after the start of the subprime mortgage crisis, concerns about systemic risk were still elevated.

The demand for global economic governance structures to perform effectively is at its greatest during crises. I define global economic governance as a set of formal and informal rules that regulate the global economy and the collection of authority relationships that promulgate, coordinate, monitor, or enforce said rules. As Menzie Chinn and Jeffry Frieden note: “The 1929 recession became a depression largely [End Page 123] because of the collapse of international cooperation; the current crisis may head in that direction if international collaboration fails.”5 One of the primary purposes of global economic governance is to provide public goods—most importantly, keeping barriers to cross-border exchange low. An open global economy lessens the stagnation that comes from a financial crisis, preventing a downturn from metastasizing into a depression.6

Since the Great Recession began, there has been no shortage of scorn for the state of global economic governance in public perception, policy analysis, and scholarly assessment. Nevertheless, a closer look at the global response to the financial crisis reveals a different picture. Despite initial shocks that were more severe than the 1929 financial crisis, global economic governance responded quickly and robustly. Whether one looks at economic outcomes, policy outputs, or institutional resilience, these governance structures either reinforced or improved upon the status quo after the collapse of the subprime mortgage bubble. These regimes performed particularly well during the acute phase of the crisis in the fall of 2008, ensuring the continuation of an open global economy. To be sure, there remain areas where global governance either faltered or failed. Even if the policy outcomes have been suboptimal, they have not been subpar. International institutions and frameworks performed contrary to expectations. Simply put, the system worked—the open global economy survived because of “good enough” global governance.

If global economic governance has worked, why has there been such a widespread consensus that it has not? Misperceptions about global economic governance persist because the Great Recession has disproportionately affected the core economies, a fact that is also the center of gravity for commentary about the global political economy. Commentators based in the advanced industrialized states have conflated national governance with global governance. They have also overestimated the effectiveness of prior periods of global economic governance. Why the system has worked better than expected remains a more open question. We can tentatively conclude that both the power of the United States and the resilience of neoliberal economic ideas were underestimated during the depths of the Great Recession.

### **--- XT: Not Key to Manufacturing**

#### Wind components will be imported and wind job growth is a net negative

O’Keefe, 12 --- CEO, George C. Marshall Institute (12/31/2012, William, “Wind Tax Credit Advocacy: Blowing Smok,” <http://energy.nationaljournal.com/2012/12/should-congress-support-wind-t.php>)

A number of the comments supporting extension of the wind production tax credit are based on half truths, illusions, and special interest politics.

One argument is that eliminating it will cost 37,000 jobs or more. There are two flaws in this argument. First, it assumes that there is no difference between jobs created by inefficient subsidies and more efficient allocation of resources. There is literature demonstrating that green subsidies misallocate resources that cost more jobs than they create. A study conducted by Spain’s Universidad Rey Juan Carlos concluded “ we find that for every renewable energy job that the state manages to finance, Spain’s experience…reveals with high confidence…that the U.S. should expect a loss of at least 2.2 jobs on average… .” Second, most of the jobs created by wind energy are in the manufacture of turbine blades and steel for wind towers, most of which are imported.

### --- XT: Siphon Jobs Turn

#### Impact on jobs and economy will be a net negative

Schulz, 9 --- senior fellow at the Manhattan Institute’s Center for Energy Policy and the Environment (Winter 2009, Max, “The Green-Jobs Engine That Can’t; Inefficient eco-friendly technologies destroy more jobs than they create,” <http://www.city-journal.org/2009/19_1_green-jobs.html>, JMP)

The alternative technologies at the heart of Obama’s plan, relying on more such government handouts and mandates, will inevitably raise energy prices—and high power prices are job killers. Industries that make physical products, whether cars or chemicals or paper cups, are energy-intensive and will gravitate to low-energy-cost locales—which is why California and New York, with some of the highest electricity prices in the country, have lost manufacturing jobs in droves. But it’s not just manufacturers that need cheap electricity: Google, the poster child of California’s information-technology economy, houses its massive server farms not in the Golden State but in places with lower electricity costs, like North Carolina and Oregon. Policies that drive up energy costs across the nation, as Obama intends, will drive many of these jobs not elsewhere in the country but overseas.

Keep in mind, too, that the traditional industries currently supplying Americans with reliable, affordable energy already employ millions of workers. The American Petroleum Institute reports that the oil and gas industry employs 1.6 million Americans. Coal mining directly and indirectly supports hundreds of thousands of jobs, according to the National Mining Association and the U.S. Bureau of Labor Statistics. A radical plan to transform our energy economy in favor of clean, renewable energy technologies would put many of those men and women out of work.

But won’t all those new green jobs make up for whatever economic hardship results? That’s the contention of New York Times columnist Thomas Friedman, among the best-known and most influential evangelists for a green economy. In his most recent bestseller, Hot, Flat, and Crowded: Why We Need a Green Revolution—and How It Can Renew America, Friedman argues that a government-directed green program would rebuild America’s national strength and bolster our economy for the twenty-first century—regardless of whether global warming turns out to be a serious problem (which he believes it is). Friedman likens his proposal to training for the Olympic triathlon. “If you make it to the Olympics, you have a much better chance of winning, because you’ve developed every muscle,” he writes. “If you don’t make it to the Olympics, you’re still healthier, stronger, fitter, and more likely to live longer and win every other race in life.”

It’s a nice analogy, but Friedman, like Obama, sees only the upside. Danish economist Bjørn Lomborg, author of books like The Skeptical Environmentalist and Cool It, which decries climate-change alarmism, agrees that global warming is real and man-made, but he differs with Friedman’s response. “It is foolish to deny climate change,” says Lomborg. “But it’s also foolish to deny climate economics, which Friedman does.” Lomborg notes that Friedman’s argument “simply fails to address the cost of his proposed solutions, and fails to weigh those costs against the benefits.”

Obama and Friedman have become the latest proponents of a common economic fallacy. One version holds that the Second World War and its aftermath were a boon for the American and European economies, since militarizing in America and rebuilding Europe spurred much-needed economic activity. Economist and New York Times columnist Paul Krugman peddled another version when, shortly after the 9/11 attacks, he suggested a possible silver lining: the destruction of the World Trade Center would require new construction and therefore reinvigorate economic activity downtown.

Such thinking was effectively debunked a century before World War II. The nineteenth-century French economist Frédéric Bastiat made an invaluable contribution to modern economics by demolishing the notion that a broken window is a good thing inasmuch as it provides work for the glazier. As Bastiat observed, the money that goes to pay the glassmaker would, had the window never been broken at all, have supported some other productive enterprise. Society as a whole winds up poorer, even if the glassmaker profits.

With his promise of 5 million new green jobs, Barack Obama heaves a brick straight through Bastiat’s window. Yesterday’s glazier is tomorrow’s solar-panel installer. The green-jobs promise amounts to killing jobs in efficient industries to create jobs in inefficient ones—hardly a recipe for economic success. William Pizer, a researcher with Resources for the Future and a lead author of the most recent report from the United Nations’ Intergovernmental Panel on Climate Change, reinforced the point at a symposium last April: “As an economist, I am skeptical that [dealing with climate change] is going to make money. You’ll have new industries, but they’ll be doing what old industries did but [at] a higher net cost. . . . You’ll be depleting other industries.” Consumers will be hurt, too, Pizer notes. Digging deeper each month to pay for expensive renewable energy, they will have less to save or spend in other areas of the economy.

There may be legitimate arguments for taking dramatic steps to fight climate change. Boosting the economy isn’t one of them.

### --- XT: Energy Prices Turns

#### Wind substantially drives up electricity costs

Dismukes, 12 --- professor, associate executive director, and director of Policy Analysis at the Center for Energy Studies, Louisiana State University(11/1/2012, David E., America Energy Alliance, “Removing Big Wind’s “Training Wheels” The Case for Ending the Federal Production Tax Credit,” <http://www.americanenergyalliance.org/wp-content/uploads/2012/10/Dismukes-Removing-Big-Winds-Training-Wheels.pdf>)

VI. Wind’s Intermittency Increases Costs, Distorts Markets, and Imperils Reliability by Harming Conventional Generation

Wind is an intermittent, unreliable generation resource, exhibiting relatively wide output swings and producing most of its electricity during off-peak evening hours when power is least needed as opposed to during day-time peaking hours when electricity demand is high, and when power is needed the most.47Electricity grid operators must address numerous important operational issues when integrating wind generation, including maintaining power quality, meeting power availability requirements and expectations, and supporting system reliability.48 While all generation must address these important integration criteria, wind generation’s scale, intermittency, and variability creates a number of unique challenges49 that impose substantial additional costs on electricity consumers.50

One of the most immediate challenges associated with integrating increased wind resources into regional power grids is the development of costly transmission infrastructure to move electricity from very remote rural areas, where wind speeds are usually at their highest, to locations where loads are concentrated. Over the past five years alone, the Federal Energy Regulatory Commission (“FERC”) has approved over $15 billion in new transmission investments simply to facilitate the movement of wind generation.51 These investments translate into higher costs and higher rates for retail customers.

### 1nc Solvency

#### Aff doesn’t boost offshore wind

#### --- Stakeholder opposition

McDonnell, 13 (Tim, 2/28/2013, “Why the US still doesn't have a single offshore wind turbine; Here's a look at the top four reasons why offshore wind remains elusive in the US,” [http://www.guardian.co.uk/environment/2013/feb/28/windpower-renewableenergy, JMP)](http://www.guardian.co.uk/environment/2013/feb/28/windpower-renewableenergy,%20JMP))

2. Blowback from "stakeholders": Whale and bird lovers. Defenders of tribal lands. Fishermen. The Koch brothers. Since it was proposed in 2001, Cape Wind, a wind farm whose backers say could provide 75 percent of Cape Cod's energy needs, has been run through a bewildering gauntlet of opponents and fought off more than a dozen lawsuits on everything from boat traffic interference to desecration of sacred sites to harming avian and marine life. Just down the seaboard another major project, Deepwater Wind, had to negotiate concerns that its turbines would throw a roadblock in the migratory pathways of endangered right whales. Alliance for Nantucket Sound, Cape Wind's main opposition group, claims the project "threatens the marine environment and would harm the productive, traditional fisheries of Nantucket Sound."

Last summer's "Cape Spin" is an excellent "tragicomic" rundown of the controversy:

Of course, there's another powerful factor at play here: NIMBYism. No one could put it better than fossil fuel magnate Bill Koch, owner of a $20 million Cape Cod beachfront estate and donor of $1.5 million to ANS: "I don't want this in my backyard. Why would you want to sail in a forest of windmills?"

Why indeed.

But Catherine Bowes, a senior analyst with the National Wildlife Federation, says while there are legitimate concerns for wildlife, Cape Wind and Deepwater have both bent over backwards to accommodate them. "I think there's an attempt at hijacking" the wildlife message by the NIMBYers, she says. "Wildlife issues are often used as a reason to oppose a project even by those who have never cared about animals before." Many of the nation's leading environmental organizations—including the NWF, Greenpeace, and the Sierra Club—have come out in favor of the project. It's easy to see why, Bowes says: "We know that the biggest threat to wildlife is global warming."

#### --- No U.S. ships to install offshore turbines

McDonnell, 13 (Tim, 2/28/2013, “Why the US still doesn't have a single offshore wind turbine; Here's a look at the top four reasons why offshore wind remains elusive in the US,” [http://www.guardian.co.uk/environment/2013/feb/28/windpower-renewableenergy, JMP)](http://www.guardian.co.uk/environment/2013/feb/28/windpower-renewableenergy,%20JMP))

3. Not a single ship in the Unites States is equipped to handle wind turbines: Forget about whales and yacht routes. How the hell do you go about lodging a 450-ton, over-400-foot tall turbine into the ocean floor? Answer: With one massive mother of a boat.

But there's a problem, says Chris van Beek, Deepwater's president: "At this point, there is not an existing vessel in the US that can do this job."

The world's relatively small fleet of turbine-ready ships—500-foot, $200 million behemoths—is docked primarily in Europe; an obscure 1920 law called the Jones Act requires ships sailing between two US ports to be US-flagged, and once the foundation of an offshore turbine is laid it counts as a "port." Consequently, turbine installation ships cruising in from, say, Hamburg, wouldn't be able to dock in the States.

On top of that, given the pittance of offshore projects in the works in the United States, bringing the ships in from abroad can be cost-prohibitive. Offshore turbines could find themselves all dressed up with nowhere to go.

Weeks Marine of New Jersey is working to solve the problem by building the first country's first turbine ship. They've completed the hull and hope to have the boat seaworthy by 2014, possibly in time to chip in on putting up Cape Wind.

#### --- Federal-State mismatch blocks solvency

McDonnell, 13 (Tim, 2/28/2013, “Why the US still doesn't have a single offshore wind turbine; Here's a look at the top four reasons why offshore wind remains elusive in the US,” [http://www.guardian.co.uk/environment/2013/feb/28/windpower-renewableenergy, JMP)](http://www.guardian.co.uk/environment/2013/feb/28/windpower-renewableenergy,%20JMP))

4. States and feds butting heads: The recipe for every offshore wind farm has two essential ingredients: a construction site, and a contract with the electric utility for the developer to sell the farm's power into the grid at a fixed price for a set period of time. In Europe, these go hand-in-hand: Governments auction off sites with the contract thrown in. But in the United States, the deep water necessary for wind turbines is managed by the federal Interior Department, while the contracts are awarded by states. So a project could wind up winning the site lease, but getting passed over for the contract, or vice versa.

"It's fucking nuts," Deepwater CEO Jeff Grybowski says. Even if you sweet-talk a state—Rhode Island, in his case—into signing the purchase contract, "there's a possibility for some other developer to win the land, and then you don't get the project." Since Deepwater and Cape Wind have the only two federal permits for offshore wind, both by the Obama administration, this state-federal tension hasn't been a major issue yet. But as wind lobbyists schmooze their way into statehouses up and down the Atlantic seaboard and score more contracts, the feds will need to rethink how they decide who gets to develop the ocean floor.

#### Extremely costly and breaks down before planned --- thousands of wind turbines have been abandoned

Gunderson, 13 --- wealth management and investment advisor (3/16/2013, Bill, “GUNDERSON: Some basic facts about wind energy; It doesn’t work,” <http://www.washingtontimes.com/news/2013/mar/16/gunderson-some-basic-facts-about-wind-energy/>, JMP)

When you set these facts aside, here is what remains: Wind turbines do not last as long as promised. They do not produce as much energy as hoped. Moreover, they require more maintenance than anyone imagined.

Wind energy turns out to be a lot like solar energy.

The Daily Mail recently reported that the University of Edinburgh found “for onshore wind, the monthly ‘load factor’ of turbines – a measure of how much electricity they generate as a percentage of how much they could produce if on at full power all the time - dropped from a high of 24 per cent in the first year after construction, to just 11 per cent after 15 years.”

That’s a 55 percent drop, for you dinosaurs who still think that is important — and that is just for turbines still working.

There’s a reason why so many wind projects got so much attention on the drawing board, but when it comes time to build them, they wither away. The offshore wind project in Delaware is a good example: One day it was hailed as the secret to the universe. The next day, it was gone. It disappeared down a black hole when people who actually had to pay for it and build it figured out what it actually was going to cost them.

It was the real numbers that scared them off. In America, these numbers are harder to come by — another red flag for investors — but as many as 1 in 4 wind turbines just does not work. Some do not even spin. Others spin, but do not generate electricity, so it is hard to tell by looking at them.

Hawaii provides the favorite example: The 37 turbines at the Kamaoa Wind Farm stood derelict for more than six years after it was discovered that repairs were more expensive than replacements. This is just one of six abandoned wind farms in one of the most wind-ideal places on the planet.

The Altamont Pass Wind Farm in Northern California used to be the largest wind farm on Earth. Now it is best known as the largest killer of eagles and other raptors. The turbines are shut down for four months a year to protect the birds during their migration. So much for that pro-forma.

As many as 4,500 wind turbines have been built — and abandoned — in California alone.

How long can that last? Ask that question of a True Believer at your own peril. They say making money is no longer the point of being in business; saving the planet is.

Even Al Gore is getting out of alternative energy such as wind. Just check the U.S. Securities and Exchange Commission filings for his company, Generation Investment. Not a wind play in the portfolio.

There may be one million reasons to invest in wind, or to install a windmill. Most involve bragging to your friends that you are saving the planet. But if you need the energy or the money, don’t — because right now, wind is still nothing more than a faith-based initiative.

Just ask Al.

#### Number of other obstacles --- expiring PTC and lack of specialized vessels, port capacity, transmission lines and grid configuration

Nunez, 12/20 --- with National Geographic (12/20/2012, Christina, “As U.S. Eyes Offshore Wind Development, Whales Get New Protections,” <http://theenergycollective.com/cnunez/162456/us-eyes-offshore-wind-development-whales-get-new-protections>)

The United States does not currently have any utility-scale wind turbines installed in its waters. A DOE-commissioned analysis projects that in a “high-growth scenario,” the offshore wind industry could support up to 350,000 jobs and stimulate $70 billion in annual investments by 2030 (the DOE seems to be sticking to a more conservative number, citing 200,000 potential jobs on its blog and infographic). But the offshore wind industry has many hurdles to overcome in order to achieve that high growth.

Aside from the potential end of the production tax credit, which would result in a loss of $10 billion in investments to the wind industry as a whole next year, according to a report from the American Wind Energy Association, the offshore wind industry faces other significant challenges. Though offshore wind has the potential to generate 4,000 gigawatts of electricity — four times the current overall U.S. generation capacity — the industry lacks adequate means of integrating that power with the nation’s grid. (See related story: “High-Voltage DC Breakthrough Could Boost Renewables“)

As the DOE notes in its National Offshore Wind Strategy document, the specialized vessels, port capacity, transmission lines and grid configuration necessary for cost-effective offshore wind energy installations does not yet exist in the United States. Projects also face a complex permitting process that must take into account an array of existing activity in U.S. waters: shipping lanes, fisheries, military operations, and wildlife.

#### Offshore wind is not competitive --- will kill investment

Taylor, 12 (8/10/2012, Phil, E&E reporter, “OFFSHORE WIND: With advance of tax credit and OCS leases, optimism builds in nascent U.S. industry,” <http://www.eenews.net/public/Greenwire/2012/08/10/1>)

Still, skeptics of Interior's offshore wind energy program, known as "smart from the start," include the Institute for Energy Research, a think tank led by a former oil industry lobbyist, which last month criticized the cost of new projects.

"It is 'dead in the water' because offshore wind energy is 3.4 times more expensive than onshore wind energy," the group said in a July 26 blog post, "making it not a prudent investment compared to other renewable alternatives for electricity generation."

#### U.S. demand will be low --- natural gas and ample onshore wind

North American WindPower, 12 (“Report: U.S. Offshore Wind Energy Progress Expected To Be 'Lackluster' Through 2016,” 12/17/2012, <http://www.nawindpower.com/e107_plugins/content/content.php?content.10836#.UNx7WcWgRGk>)

Offshore wind energy installations are expected to achieve a compound annual growth rate of 44% between 2011 and 2016, with 18 GW of installations expected by the end of that period, according to a new analysis from MAKE Consulting. Much of that growth can be attributed to favorable policy in Europe and China, the firm notes.

MAKE Consulting expects that Europe will be the growth powerhouse for offshore wind, with the continent accounting for 62% of total installations in the 2011-2016 period. Of those European installations, 77% will be driven by Germany and the U.K., which are striving toward their ambitious 2020 offshore wind targets of 18 GW and 10 GW, respectively.

Mirroring the upward swing in northern Europe, the Asia Pacific region is expected to install 6.6 GW of offshore wind through 2016, representing 36% of the global offshore wind energy market. Although China will remain the largest offshore wind market in the Asia Pacific, the emergence of South Korea, Vietnam and Taiwan will supplement growth during that period.

In sharp contrast, progress in the U.S. is expected to be lackluster, due to low gas and electricity prices, an ample onshore resource and weak political commitment to renewables, MAKE Consulting says.

Offshore wind asset ownership will remain dominated by European utilities and developers, with Vattenfall and DONG Energy leading the way, according to the firm. Currently, southern European utilities are not represented in the top asset owners, due to a lack of offshore wind activity and challenging economics in their home markets, but they do represent a sizable chunk of the 185 GW pipeline.

### --- XT: Multiyear Incentives Key to Solve

#### Only a multiyear extension of incentives can solve

Gardner, 13 (Lauren, 2/26/2013, “Greater Federal, State Roles Sought to Help Develop Offshore Wind Potential,” [http://www.rollcall.com/news/greater\_federal\_state\_roles\_sought\_to\_help\_develop\_offshore\_wind\_potential-222673-1.html?pos=hbtxt, JMP)](http://www.rollcall.com/news/greater_federal_state_roles_sought_to_help_develop_offshore_wind_potential-222673-1.html?pos=hbtxt,%20JMP))

Interior’s offshore energy agency, the Bureau of Ocean Energy Management, has issued commercial leases for two projects off the coasts of Massachusetts and Delaware, and more facilities are in development near Rhode Island and New Jersey.

But the Cape Wind project in Massachusetts has faced years of delays due to the not-in-my-backyard stance held by some residents and concerns about its impact on the commercial fishing industry.

And Bluewater Wind, the company behind the Delaware proposal, has put those plans on hold while it searches for more investors — a tough job when tax benefits are routinely on the brink of extinction and loan guarantees have become verboten in Washington.

While regulatory streamlining at the executive branch level may remove one obstacle to realizing the industry’s potential, inconsistent tax and grant policies and the need for state government buy-in remain challenges for the resource.

“Congress needs to create a vision of expanding our energy policy to include the development of offshore wind,” said Bob Mitchell, CEO of the Atlantic Wind Connection subsea transmission project.

The tax arguments are not new for a clean-energy resource. Onshore wind proponents lobbied hard for an extension of their prized production tax credit during the fiscal-cliff negotiations at the end of 2012. The agreement included a one-year patch for the investment tax credit — which is more beneficial to offshore wind developers because of their projects’ larger size — in addition to a modification allowing companies to claim the benefits once they begin construction, rather than when they start generating electricity.

Sen. Thomas R. Carper, D-Del., has led the charge in Congress to give prospective developers greater tax certainty. He has proposed leaving the 30 percent investment credit in place for the first 3,000 megawatts of offshore wind power produced, giving developers five years to get a facility into the water. That model is intended to offer certainty for developers and an expiration date for budget hawks.

“This is a way that allows not even having to go year-to-year to the tax-writing committees,” said Jim Lanard, president of the Offshore Wind Development Coalition.

Carper, who is expected to reintroduce the legislation with Maine Republican Susan Collins as early as this week, says the significance of tax policy to growing the industry isn’t likely to change anytime soon, given historically low natural gas prices that have edged utilities away from coal but prevented most from committing more forcefully to renewables.

“If the price of natural gas stays low, then the tax policy and providing certainty and predictability becomes all the more important,” he said.

The Energy Department also is working to propel projects beyond the research-and- development stage, leading a competitive demonstration program that will fund up to three finalists to advance their wind farms to the commercial stage by 2017.

### --- XT: Environmental Opposition Blocks Projects

#### NIMBY concerns empirically trigger years of delays

Gardner, 13 (Lauren, 2/26/2013, “Greater Federal, State Roles Sought to Help Develop Offshore Wind Potential,” [http://www.rollcall.com/news/greater\_federal\_state\_roles\_sought\_to\_help\_develop\_offshore\_wind\_potential-222673-1.html?pos=hbtxt, JMP)](http://www.rollcall.com/news/greater_federal_state_roles_sought_to_help_develop_offshore_wind_potential-222673-1.html?pos=hbtxt,%20JMP))

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#### Environmental opposition blocks projects

Burgess, 13 (James, 2/28/2013, “Four Reasons why the US has no Offshore Wind Turbines,” [http://oilprice.com/Latest-Energy-News/World-News/Four-Reasons-why-the-US-has-no-Offshore-Wind-Turbines.html, JMP)](http://oilprice.com/Latest-Energy-News/World-News/Four-Reasons-why-the-US-has-no-Offshore-Wind-Turbines.html,%20JMP))

Offshore wind farms in Europe are incredibly popular and the offshore wind sector is providing an increasing amount of electricity to power grids. In comparison, in the US not a single wind turbine has been deployed off shore.

Here we look at the four main reasons why the offshore wind energy sector in the US is struggling to grow, or even begin.

1. Environmental opposition – Europeans are generally behind the development of offshore wind farms, and little opposition is raised when new ones are proposed, or installed. In the US however, environmentalists throw up strong opposition to potential offshore wind farms. In 2001 the Cape Cod wind farm was proposed, yet since then it has had to fight off dozens of lawsuits, and as a result not one turbine has yet been erected.

### Politics DA Links

#### Republican opposition to investment tax credit for offshore wind

Burger, 13 (Andrew, 2/7/2013, “U.S. Senate Revisits Offshore Wind Energy Tax Credits,” [http://www.triplepundit.com/2013/02/delaware-senator-aims-enact-offshore-wind-energy-investment-tax-credit/, JMP)](http://www.triplepundit.com/2013/02/delaware-senator-aims-enact-offshore-wind-energy-investment-tax-credit/,%20JMP))

Concerted efforts to jump-start development of an offshore wind energy industry on the part of the Obama Administration, state governments and private-sector players are beginning to bear fruit. Now, a U.S. Senator is looking to revive an wind tax credit for investors that will generate significant forward momentum toward realizing that objective.

Sen. Tom Carper (D-Del.) intends to reintroduce legislation that would offer a 30 percent investment tax credit (ITC) for a limited number of offshore wind power projects, according to a report from The Hill.

Carper and co-sponsor Sen. Olympia Snowe (R-Maine) originally submitted a bill during the previous session of Congress that called for the enactment of an ITC that would have reimbursed developers for up to 30 percent of offshore wind power project costs, according to The Hill’s report. The bill would have capped the ITC at 3,000 megawatts (MW) of combined offshore wind power generating capacity.

A jump-start for U.S. offshore wind?

Carper and Snowe’s original bill, unsurprisingly, met stiff resistance from Republicans and self-proclaimed fiscal conservatives who believe “the federal government should not be in the business of jump-starting nascent industries through subsidies, especially in light of the growing federal deficit,” The Hill’s Zack Colman recounts. Of course, that conveniently ignores the billions of actual and de facto federal government subsidies for long-established oil, gas and coal sector companies that in no way, shape or form can be considered nascent.

The U.S. is playing catch-up when it comes to developing offshore wind power generation capacity and a new industry capable of creating substantial amounts of jobs, personal income and tax revenue for decades to come. China and the European Union, in particular, are both well ahead of the U.S. when it comes to offshore wind energy.

More than one offshore wind turbine was installed per working day in European waters in 2012, bringing the total to 1,662 in 55 offshore wind farms spanning territorial waters of ten European countries, according to year-end data compiled and presented in a European Wind Energy Association report released January 28. Installation of 293 offshore wind turbines with a total rated capacity of 1,165 megawatts (MW) represents a 33 percent increase from 2011, when offshore wind turbines with a total rated capacity of 874 MW were installed.

In stark contrast, not one offshore wind turbine has been installed in U.S. waters despite the tremendous potential for wind energy along the U.S.’ extensive coastlines. A Stanford University research team estimated that there’s enough potential energy in U.S. Atlantic offshore winds to power the entire East Coast, enough clean, renewable energy to meet fully one-third of the country’s electricity demand.

Despite staunch opposition in Congress, the Obama Administration, along with state governments and private offshore wind project investors, has been working to lay the scientific, engineering and institutional framework for accelerated offshore wind energy development, however. If passed, Sen. Carper’s bill would provide another substantial boost.

The Department of Interior and Bureau of Ocean Energy Management (BOEM) awarded a lease late last October to NRG Bluewater Wind Delaware LLC, the first completed under Interior’s “Smart from the Start” initiative, which aims to streamline and facilitate development of environmentally responsible offshore wind development along the Atlantic Outer Continental Shelf (OCS).

The federal OCS lease grants the corporation exclusive rights to submit one or more plans to BOEM to conduct activities in support of offshore wind energy development spanning 96,430 acres some 11 nautical miles off the coast of Delaware, the Interior Dept. explains in a press release.

Elsewhere, along the U.S. Atlantic coast, the Atlantic Wind Connection Jan. 14 announced that it had selected New Jersey for the first phase of a project that entails laying a high-voltage, direct current (DC) electricity transmission backbone under the U.S. Atlantic seabed that would stretch from New York City to Virginia.

With high-profile backers including Google, Marubeni, Bregal Energy and Elia, independent transmission company Trans-Elect and Atlantic Grid Development are AWC’s project developers. With a planned capacity of 3,000-megawatts (MW), the so-called New Jersey (NJ) Energy Link is to extend the length of the Mid-Atlantic state, linking offshore wind energy resources and consumers in northern, central and southern Jersey.

Better luck the second time around?

Taking essentially the same form as the bill he and Sen. Snowe introduced last session, the reintroduced bill is likely to generate equally vociferous opposition this time around, particularly in light of ongoing debate and controversy over this fiscal year’s federal budget and deficit.

Carper didn’t reveal a timeline for the bill’s reintroduction to reporters, but he did comment on the resistance likely to be encountered.

“We’ve been trying to get that done. As it turns out, when [the Congressional Budget Office] prices that — they score that — it’s not cheap. And so pretty high score, hard to get it done,” Carper said during an event hosted by the Center for American Progress Action Fund in Washington, D.C.

Carper has changed the language of the bill to limit the ITC to projects that would begin this year rather than actually begin producing electricity. This modification mirrors the one way written into a bill that extended the onshore wind energy production tax credit, part of the American Taxpayer Relief Act of 2013 that avoided the U.S. going over the so-called “Fiscal Cliff.”

### --- XT: Politics Link

#### Republican opposition to multiyear tax credits --- without them the aff can’t solve

Jackson, 13 (Derrick, 3/2/2013, “Politics imperil offshore wind sweet spots,” [http://bostonglobe.com/opinion/2013/03/02/sour-politics-imperil-offshore-wind-sweet-spots/wZHvvjxVMtZKx2Y42iRpII/story.html, JMP)](http://bostonglobe.com/opinion/2013/03/02/sour-politics-imperil-offshore-wind-sweet-spots/wZHvvjxVMtZKx2Y42iRpII/story.html,%20JMP))

With the wind figuratively in his sails, outgoing Interior Secretary Ken Salazar told the Offshore Wind Power USA conference in Boston on Tuesday that not only had wind become the nation’s top source of new electricity in 2012, but that there are enough “sweet spots” in Massachusetts ocean waters to power 1.7 million homes. “We control the ocean floor,” Salazar said. “We get to decide what it is that happens.”

But Salazar was also quite clear that control does not necessarily mean development for wind. His sweet spots remain imperiled by the Republicans’ sour opposition to renewable energy production tax credits. The credits were extended for one more year in the end-of-the-year fiscal cliff negotiations. But thousands of jobs were lost with the uncertainty of an extension.

“We have this start-and-stop, start-and-stop kind of mentality,” Salazar said in his speech. In an interview afterwards, he said the best way to stop that mentality was for the United States to implement multi-year production credits and finally adopt a national clean energy standard on the level of California’s. That state has set a goal of getting 33 percent of its energy from renewable sources by 2020; it has a cap-and-trade program that currently covers electric power plants and large industrial plants, but will phase in heating and transportation fuels in 2015.

#### The plan gets sucked into larger congressional budget battles

Conathan, 13 --- Director of Ocean Policy at the Center for American Progress (1/31/2013, Michael, “Filling The Sails Of Offshore Wind Energy,” <http://thinkprogress.org/climate/2013/01/31/1521031/filling-the-sails-of-offshore-wind-energy/?mobile=nc>)

As America has stood on the sidelines, other countries such as Denmark, the United Kingdom, Germany, and even China have leapt ahead of us in developing one particularly strong—and commercially viable—renewable resource, which the United States also happens to have in abundance: offshore wind. As of June 2012 the rest of the world boasted 4,619 megawatts of total installed offshore wind energy capacity. Meanwhile, we have not even begun construction of our first offshore turbine. Lack of a clear regulatory structure, inconsistent messages from other ocean stakeholders, congressional budget battles, opposition to specific project siting, and instability in financial markets have all played a role in preventing domestic offshore wind from becoming a reality.